

*Cumberland County Council.*

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# ANNUAL REPORT

OF THE

*Medical Officer of Health,*

*F. H. MORISON, M.D., D.P.H..*

For the Year 1921.

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CARLISLE :

JAMES BEATY & SONS, PRINTERS, LONSDALE STREET,

1922.



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# COUNTY COUNCIL OF CUMBERLAND.

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TO THE CUMBERLAND COUNTY COUNCIL.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I have pleasure in presenting to you my Fourteenth Annual Report, viz., that for the year 1921.

The form of the Report has been altered in conformity with Circular 269 of the Ministry of Health, dated the 28th December, 1921, which says :—

“ Annual Reports of a full and detailed character (referred to in this Circular as “ Survey Reports ”) will normally be required at intervals of not more than 5 years, in other years Medical Officers of Health should be asked to prepare an Annual Report of a more simple character (referred to in this Circular as an “ ordinary report.”).

The Annual Reports for 1919 and 1920 will be treated as constituting the first of the series of “ Survey Reports.”

The Vital Statistics for the year are very satisfactory.

Although the birth-rate (24.5) is lower than in the previous year (27.6), it still compares favourably with that for England and Wales (22.4). Both the general death-rate and the Infant Mortality rate are the lowest I have ever recorded.

## **Area**

The Area of the Administrative County as given in the preliminary Census Returns for 1921, is 968,598 acres.—Municipal Boroughs and Urban Districts 62,133 acres ; Rural Districts 906,465 acres.

## Population

The population as given by the Registrar General for the year 1921 :—

Urban Districts	...	...	...	...	120,701
Rural Districts	...	...	...	...	95,990
Administrative County	...	...	...	...	216,691

## Births

The births registered in the County during the year 1921 numbered 5,325 (2,729 males, and 2,596 females), giving a birth-rate of 24.5 per thousand of population, compared with 5,922 (3,088 males, and 2,834 females), and a rate of 27.6 in the previous year.

In the Urban Districts there were 3,159 births (1,633 males, and 1,526 females), giving a birth-rate of 26.1, and in the Rural Districts 2,166 (1,096 males, 1,070 females), giving a rate of 22.5 per thousand of population. The corresponding figures for the previous year were :—

Urban Districts 3,521, and a rate of 28.9 ; Rural Districts 2,401, and a rate of 25.8.

The birth-rate in England and Wales was 22.4.

Arranged in the order of their birth-rates the Urban and Rural Districts stand thus :—

<i>Urban.</i>				<i>Rural.</i>			
Arlecdon and Frizington	31.1			Cockermouth	...	26.4	
Harrington	...	...	30.03	Whitehaven	...	24.6	
Whitehaven	...	...	29.6	Longtown	...	24.4	
Maryport	...	...	28.2	Wigton	...	23.9	
Cleator Moor	...	...	28.01	Carlisle	...	20.1	
Millom	...	...	26.8	Brampton	...	19.6	
Workington	...	...	26.06	Alston	...	18.05	
Egremont	...	...	25.3	Bootle	...	17.9	
Wigton	...	...	23.0	Penrith	...	17.9	
Cockermouth	...	...	22.3				
Aspatria	...	...	22.2				
Penrith	...	...	21.4				
Holme Cultram	...	...	20.9				
Keswick	...	...	16.1				

## Illegitimate Births

The number of illegitimate Births was 316, so that 59 per thousand of the total births were illegitimate, compared with 360, and 60 per thousand in the previous year.

The ratio of illegitimate births per thousand of the total births in the various Sanitary Districts is as follows :—

<i>Urban.</i>				<i>Rural.</i>			
Arlecdon & Frizington	61			Alston	...	...	120
Aspatria	...	101		Bootle	...	...	37
Cleator Moor	...	50		Brampton	...	...	57
Cockermouth	...	82		Carlisle	...	...	67
Egremont	...	41		Cockermouth	...	...	66
Harrington	...	67		Longtown	...	...	71
Holme Cultram	...	70		Penrith	...	...	64
Keswick	...	58		Whitehaven	...	...	54
Maryport	...	38		Wigton	...	...	58
Millom	...	68					
Penrith	...	107					
Whitehaven	...	42					
Wigton	...	83					
Workington	...	38					

In the Urban Districts 54, and in Rural Districts 66 per thousand births were illegitimate.

## Deaths

The number of deaths registered was 2,703 (1,330 males, and 1,373 females), this gives a death-rate of 12.4 per thousand.

The death-rate in England and Wales was 12.1

In Urban Districts there were 1,566 deaths (754 males, and 812 females), giving a rate of 12.9, in Rural Districts 1,137 (576 males, and 561 females), giving a rate of 11.8.

Arranged in order of their death-rates the Urban and Rural Districts stand thus :—

<i>Urban.</i>				<i>Rural.</i>			
Wigton	...	...	15.8	Alston	...	...	16.2
Millom	...	...	14.3	Brampton	...	...	13.4
Penrith	...	...	14.2	Penrith	...	...	12.4
Arlecdon & Frizington	...	...	13.9	Wigton	...	...	12.1
Keswick	...	...	13.7	Carlisle	...	...	12.09
Whitehaven	...	...	13.6	Cockermouth	...	...	11.5
Harrington	...	...	13.2	Longtown	...	...	11.02
Cleator Moor	...	...	13.1	Whitehaven	...	...	10.7
Egremont	...	...	13.1	Bootle	...	...	10.06
Cockermouth	...	...	12.6				
Maryport	...	...	12.5				
Workington	...	...	12.3				
Holme Cultram	...	...	9.3				
Aspatria	...	...	8.1				



## Infant Mortality

5,325 births were registered, and 437 infants died before they reached the age of one year, the Infant Mortality, therefore, was at the rate of 82 per thousand births, 8 per thousand lower than in the previous year.

In the Urban Districts there were 3,159 births, and 281 deaths of infants. The Infant Mortality was, therefore, 89 per thousand births, 8 per thousand lower than the previous year.

In the Rural Districts there were 2,166 births, and 156 infant deaths, giving an Infant Mortality of 72 per thousand births, 6 per thousand lower than in the previous year.

The Infant Mortality rate of legitimate infants in the County was 79, that of illegitimate infants being 126. Of the total infant deaths 26.8% died before they were one week old, 35.3% over one week, but under three months old, or, in other words, 62% of the infant deaths occurred under three months of age, 16.5% between three and six months, 12% between six and nine months, and 8.2% between nine and twelve months.

The main causes of deaths under one week were:—Premature Birth (61) ; and Congenital Debility (21). Of those under three months:—Premature Birth (29) ; Congenital Debility (21) ; Stomach and Bowel troubles (Diarrhœa, etc.) ( 31) ; Respiratory Diseases (23) ; Wasting Diseases (9) ; and Convulsions (10). Between three and six months:—Stomach and Bowel troubles (23) ; Respiratory Diseases (25) ; and Convulsions (5).

Arranged in order of their Infant Mortality rates the Urban and Rural Districts stand thus:—

<i>Urban.</i>				<i>Rural.</i>			
Millom ...	...	...	131	Alston ...	...	...	120
Wigton ...	...	...	119	Cockermouth ...	...	...	97
Keswick ...	...	...	116	Whitehaven ...	...	...	79
Egremont ...	...	...	111	Wigton ...	...	...	77
Workington ...	...	...	102	Longtown ...	...	...	71
Whitehaven ...	...	...	95	Brampton ...	...	...	57
Cleator Moor ...	...	...	88	Penrith ...	...	...	46
Harrington ...	...	...	82	Bootle ...	...	...	37
Arlecdon & Frizington			79	Carlisle ...	...	...	29
Maryport ...	...	...	70				
Aspatria ...	...	...	63				
Holme Cultram ...	...	...	60				
Penrith ...	...	...	34				
Cockermouth ...	...	...	9				

The Infant Mortality in England and Wales was 83 per thousand births.

## Cancer

247 deaths were registered as due to Cancer, a rate of 1.1 per thousand, as compared with 262 deaths, and a rate of 1.2 in 1920.

Arranged in order of their death rates from Cancer the Urban and Rural Districts stand thus :—

<i>Urban.</i>				<i>Rural.</i>			
Cockermouth	...	...	2.06	Carlisle	...	...	1.5
Penrith	...	...	1.8	Wigton	...	...	1.5
Millom	...	...	1.5	Penrith	...	...	1.4
Keswick	...	...	1.4	Bootle	...	...	1.3
Maryport	...	...	1.4	Brampton	...	...	1.3
Wigton	...	...	1.3	Alston	...	...	1.08
Arlecdon & Frizington			1.1	Cockermouth	...	...	1.0
Whitehaven	...	...	1.0	Longtown	...	...	0.9
Aspatria	...	...	0.8	Whitehaven	...	...	0.9
Workington	...	...	0.8				
Cleator Moor	...	...	0.4				
Egremont	...	...	0.4				
Harrington	...	...	0.4				
Holme Cultram	...	...	0.4				

## Zymotic Diseases

The diseases usually included in this category are :—Enteric Fever, Measles, Smallpox, Scarlet Fever, Whooping Cough, Diphtheria, Diarrhæa.

148 deaths were registered from these diseases, compared with 213 the previous year. This gives a rate of 0.6, compared with 0.9 on 1920. Of the 148 deaths, Diphtheria was responsible for 38, Whooping Cough for 23, Diarrhœa 79, Scarlet Fever 6, and Enteric Fever and Measles 1 each.

Arranged in the order of their death-rates from Zymotic Diseases the Urban and Rural Districts stand thus :—

<i>Urban.</i>				<i>Rural.</i>			
Egremont	...	...	1.6	Alston	...	...	1.4
Harrington	...	...	1.3	Cockermouth	...	...	0.8
Workington	...	...	1.3	Whitehaven	...	...	0.6
Arlecdon & Frizington			1.1	Bootle	...	...	0.5
Millom	...	...	1.1	Longtown	...	...	0.4
Whitehaven	...	...	0.8	Brampton	...	...	0.3
Maryport	...	...	0.6	Wigton	...	...	0.2
Cockermouth	...	...	0.4	Penrith	...	...	0.1
Keswick	...	...	0.4	Carlisle	...	...	Nil.
Aspatria	...	...	0.2				
Holme Cultram	...	...	0.2				
Penrith	...	...	0.2				
Wigton	...	...	0.2				
Cleator Moor	...	...	0.1				

## Smallpox

Although no cases have been notified in the County during the year, one very disquieting fact is that so many of the children and adolescents of the population are either not vaccinated at all or else imperfectly protected by only having two or even one small vaccination mark.

The efficiency with which vaccination is carried out, varies in different districts. In some districts as many as 50% of the children are unvaccinated.

## Scarlet Fever

346 cases were notified, and 3 deaths, compared with 259 cases, and 3 deaths in 1920. Scarlet Fever was more prevalent in the Rural than in the Urban Districts.

## Diphtheria

300 cases were notified, and 38 deaths, compared with 478 cases, and 61 deaths in 1920 ; a case mortality of 12.6%.

In the Urban and Rural Districts deaths occurred as follows :—

<i>Urban.</i>				<i>Rural.</i>			
Workington	...	...	8	Alston	...	...	1
Arlecdon & Frizington			2	Bootle	...	...	1
Cockermouth	...	...	1	Cockermouth	...	...	4
Egremont	...	...	7	Longtown	...	...	3
Harrington	...	...	2	Penrith	...	...	1
Holme Cultram	...	...	1	Whitehaven	...	...	3
Maryport	...	...	1				
Penrith	...	...	2				
Whitehaven	...	...	1				

## Enteric Fever

7 cases only were notified as against 18 in 1920 ; 1 death occurred.

## Puerperal Fever

8 cases occurred, as against 17 the previous year. There were 5 deaths, compared with 17 the previous year.

## Measles

Only one death was registered as due to Measles, against 63 in the previous year.



## Whooping Cough

23 deaths were registered as due to Whooping Cough, against 25 the previous year.

## Diarrhoea

79 deaths under two years of age occurred against 58 the previous year; 62 of the 79 deaths were under one year of age.

## Erysipelas

94 cases notified against 79 the previous year.

## Influenza

56 deaths occurred, against 57 the previous year.

## Respiratory Diseases

From these diseases there were 368 deaths, compared with 469 the previous year.

In Urban Districts the death-rate from these diseases was 1.9, against 2.5 the previous year; and in Rural Districts 1.3, against 1.6 the previous year.

The death-rate for the administrative County from these diseases was 1.6, against 2.1 the previous year.

Arranged in the order of their death-rates from Respiratory Diseases the Urban and Rural Districts stand thus :—

<i>Urban.</i>				<i>Rural.</i>			
Keswick	...	...	3.3	Brampton	...	...	1.8
Whitehaven	...	...	2.7	Cockermouth	...	...	1.7
Wigton	...	...	2.7	Penrith	...	...	1.4
Harrington	...	...	2.6	Whitehaven	...	...	1.4
Egremont	...	...	2.3	Longtown	...	...	1.2
Millom	...	...	2.3	Carlisle	...	...	1.1
Aricedon & Frizington	...	...	2.1	Wigton	...	...	1.05
Cleator Moor	...	...	2.1	Bootle	...	...	1.0
Maryport	...	...	1.8	Alston	...	...	Nil.
Cockermouth	...	...	1.4				
Workington	...	...	1.4				
Holme Cultram	...	...	1.05				
Penrith	...	...	0.7				
Aspatria	...	...	0.2				

## Water Supply

Preliminary steps have been taken by the Whitehaven Rural District and the Harrington Urban District to secure an efficient water supply for these Areas by gravitation. Many complaints have been made from Harrington and Distington of the inadequacy and unsatisfactory nature of the present supply.

Cockermouth Rural District could, and should, make arrangements to obtain a supply from this source for several Parishes in their district which are in great need of an efficient supply.

### **Rivers and Streams**

No complaints of pollution have been received during the year. The River Waver is still seriously polluted by the sewage from the Wigton Urban District, and from adjoining villages in the Rural District. The Wigton Urban District is, however, preparing a scheme which, if put into effect, will prevent any further pollution of this River.

The new Sewage Disposal Works at Cleator Moor are now well in hand.

Indications point to much needed improvements in the Cockermouth Sewage Disposal Works, and in the Cockermouth Rural District, several Parishes have had plans for new schemes prepared.

The new system in Longtown Rural District is nearing completion.

In the Carlisle Rural District several new sewage schemes have been under consideration, and the same remark applies to the Wigton Rural District.

### **Sale of Food and Drugs Act**

The following is a copy of the Annual Report of the County Analyst:—

COUNTY ANALYST'S LABORATORY,  
40 LOWTHER STREET,  
WHITEHAVEN,  
3rd January, 1922.

GENTLEMEN,

#### **SALE OF FOOD AND DRUGS ACT.**

During the year 1921 there have been submitted to me for analysis under these Acts 314 samples, all of which had been taken by Police Officers acting as Food Inspectors.

The number of these samples which were found to be adulterated was 21. This gives 6.7 as the percentage of total adulteration in Cumberland during the past year, and is slightly higher than in 1920, when the total adulteration was 6.1 per cent.

Milk was the only article in which adulteration was found, and since 186 samples of milk were examined, the percentage of adulteration is 11.6, and is  $1\frac{1}{2}$  per cent. higher than it was in 1920.

In addition to the above there were analysed 10 samples of milk taken as "appeals to the Cow."

The average composition of all the samples of milk analysed during the year 1921 is as follows:—

Milk-fat	..	..	..	..	..	..	3.50
Non-fatty Solids	..	..	..	..	..	..	8.88
Water	..	..	..	..	..	..	87.62
							<hr/> 100.00 <hr/>

The following are the Quarterly analyses :—

	<i>Jan. to Mar.</i>	<i>April to June,</i>	<i>July to Sept.,</i>	<i>Oct. to Dec.,</i>
	<i>46 samples.</i>	<i>50 samples.</i>	<i>54 samples.</i>	<i>46 samples.</i>
Milk-fat	.. 3.50	.. 3.25	.. 3.44	.. 3.83
Non-fatty Solids	.. 8.89	.. 8.86	.. 8.76	.. 9.06
Water	.. 87.61	.. 87.89	.. 87.80	.. 87.11
	<hr/> 100.00 <hr/>	<hr/> 100.00 <hr/>	<hr/> 100.00 <hr/>	<hr/> 100.00 <hr/>

#### BUTTER AND MARGARINE ACT, 1907.

Eight samples of Butter were submitted to me for analysis under this Act, and were all found to be genuine.

I append a list of all the articles which I have analysed during the year 1921 under the Sale of Food and Drugs Acts.

I am, Gentlemen,

Your obedient servant.

ROBERT HELLON, Ph.D., F.I.C.,  
*County Analyst.*

#### ARTICLES.

examined under the Sale of Food and Drugs Acts during the year 1921.

Milk	..	..	..	..	..	186 samples.
Pepper	..	..	..	..	..	14 "
Oatmeal	..	..	..	..	..	12 "
Baking Powder	..	..	..	..	..	11 "
Coffee	..	..	..	..	..	11 "
Butter	..	..	..	..	..	10 "
Confectionery	..	..	..	..	..	9 "
Rice	..	..	..	..	..	8 "
Sugar	..	..	..	..	..	8 "
Cream of Tartar	..	..	..	..	..	7 "
Tea	..	..	..	..	..	7 "
Tapioca	..	..	..	..	..	6 "
Cocoa	..	..	..	..	..	5 "
Lard	..	..	..	..	..	3 "
Cornflour	..	..	..	..	..	3 "
Arrowroot	..	..	..	..	..	2 "
Mustard Condiment	..	..	..	..	..	2 "
Cheese	..	..	..	..	..	2 "
Cinnamon	..	..	..	..	..	2 "
Custard Powder	..	..	..	..	..	1 sample.
Barley	..	..	..	..	..	1 "
Flour	..	..	..	..	..	1 "
Vinegar	..	..	..	..	..	1 "
Dried Eggs	..	..	..	..	..	1 "
Bread	..	..	..	..	..	1 "



## Tuberculosis

During the year 207 cases of Pulmonary Tuberculosis were notified, 130 in Urban and 77 in Rural Districts, as against 260 in the previous year. There were 40 cases of other forms of Tuberculosis, compared with 48 in the previous year. 168 deaths from Pulmonary Tuberculosis occurred, 99 in Urban and 69 in Rural Districts, as against 144 in the previous year. There were 48 deaths from other forms of Tuberculosis, compared with 55 in the previous year.

During the year 241 persons have applied for Sanatorium Benefit; 60 of these were from Ex-Service men. 85 from Insured Persons (64 males and 21 females); 1 from a non-insured person (male); 32 from Dependents of insured persons over 16 years of age (no males and 32 females); and 63 from dependents under 16 years of age (33 males and 30 females). Fifty-four of the above patients have been under treatment twice during the year, and five have received three forms of treatment during the year.

200 cases were still in receipt of treatment at the end of the year.

Of the applications for Sanatorium Benefit 11 were not suitable cases for treatment, one person withdrew his application for benefit, and three died before examination by the Tuberculosis Officer. Fifteen of the above were sent to the Colony.

Of the cases treated 114 were sent to the Sanatorium, 29 were treated at home (i.e., received Domiciliary Treatment), and the remainder were referred to Dispensaries. One was recommended for Hospital Treatment.

Eighteen open-air shelters were in use during the year.

Nine Dispensaries were open during the year.

At the beginning of the year there were 273 names on the registers of the Dispensaries, and 115 new names were entered on the registers during the year.

There were 1,599 attendances at the Dispensaries, and 1,425 examinations were made.

The number of casual consultations (excluding contacts) were 369.

72 patients ceased to attend from one cause or another.

Visits were paid to 743 patients' homes by the Tuberculosis Officers and Nurses.

There were 7 deaths of Dispensary patients from Tuberculosis.



TABLE SHOWING CASES TREATED DURING 1921.

CLASS OF APPLICANT	Sex	No. of Applicants	No. Treatment offered	Withdrawn or refused treatment.	Died before examination	Died before comment of treatment	Hospital.	Left district before exam	Domiciliary	Sanatorium Treatment.					Still in San
										No.	Im-provd	Sta-tion-ary.	Not Im-provd	Dead.	
Insured Persons	M.	123	5	4	2	1	1	1	24	41	23	2	1	1	14
	F.	21	—	—	—	1	—	—	5	14	7	1	2	—	4
Dependants over 16	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	32	3	—	—	1	—	—	—	19	11	3	2	—	3
Dependants under 16	M.	33	—	1	1	2	—	—	—	20	7	—	—	1	12
	F.	30	3	—	—	2	—	—	—	18	10	—	—	—	8
Non-Insured	M.	2	—	—	—	—	—	—	—	2	2	—	—	—	—
Totals	..	241	11	5	3	7	1	1	29	114	60	6	5	2	41

Arranged in their order of death-rates from Pulmonary Tuberculosis the Urban and Rural Districts stand thus :—

<i>Urban</i>				<i>Rural.</i>			
Whitehaven	...	...	1.4	Alston	...	...	1.8
Cleator Moor	...	...	0.9	Carlisle	...	...	1.1
Penrith	...	...	0.9	Bootle	...	...	1.0
Cockermouth	...	...	0.8	Longtown	...	...	0.9
Wigton	...	...	0.8	Whitehaven	...	...	0.7
Workington	...	...	0.8	Wigton	...	...	0.7
Keswick	...	...	0.7	Brampton	...	...	0.4
Millom	...	...	0.6	Penrith	...	...	0.4
Arlecdon & Frizington			0.5	Cockermouth	...	...	0.3
Maryport	...	...	0.5				
Egremont	...	...	0.4				
Harrington	...	...	0.4				
Aspatria	...	...	0.2				
Holme Cultram	...	...	0.2				

Arranged in the order of their death-rates from all forms of Tuberculosis the Urban and Rural Districts stand thus :—

<i>Urban.</i>				<i>Rural.</i>			
Whitehaven	...	...	1.6	Alston	...	...	1.8
Cleator Moor	...	...	1.5	Bootle	...	...	1.3
Wigton	...	...	1.3	Carlisle	...	...	1.2
Workington	...	...	1.1	Longtown	...	...	1.1
Penrith	...	...	1.09	Whitehaven	...	...	1.07
Cockermouth	...	...	1.03	Wigton	...	...	0.7
Keswick	...	...	0.9	Cockermouth	...	...	0.6
Millom	...	...	0.9	Penrith	...	...	0.5
Harrington	...	...	0.8	Brampton	...	...	0.4
Arlecdon & Frizington			0.7				
Maryport	...	...	0.7				
Aspatria	...	...	0.5				
Egremont	...	...	0.5				
Holme Cultram	...	...	0.2				

As in the past 6 years it has been impossible to keep in touch with all the old cases of Tuberculosis which have been under treatment an, enquiry was made into all these cases.

1,216 cases were enquired into, of these 489, equal to 40% were dead, 278 had left the County, were not known, or for some reason were unable to be traced, and 449, equal to 37%, were alive.

Of those still living 144, equal to 32%, were well, and a large majority of them were at work and doing well. The remaining 305, equal to 68%, were still under treatment or observation, sufficient time not having elapsed to enable an opinion, as to their future, of any value to be given.

A full report on Englethwaite Industrial Colony, by the Medical Superintendent (Dr. Mark Fraser), will be found as an Appendix to this report.

## **Public Health (Venereal Diseases) Regulation 1916**

I am indebted to Dr. A. C. B. McMurtrie, your Specialist Medical Officer, for the following report.

The Council's scheme for carrying out the provisions of the Public Health (Venereal Diseases) Regulations, 1916, during the year 1921 is discussed under the following headings :—

1. Treatment Centres.
2. Pathological Examinations.
3. Provision of Salvarsan Substitutes.
4. Propaganda.
5. Conclusions made from the work done during the year.
6. Summary of improvements urgently required.
7. Recommendations as to future extension of the scheme.

### **I.—TREATMENT CENTRES.**

No new treatment centres were opened. Treatment was carried out at three centres :—

Cumberland Infirmary, Carlisle.  
Whitehaven and West Cumberland Infirmary, Whitehaven.  
County Council Treatment Centre, 58 Curzon Street, Maryport.

#### **CUMBERLAND INFIRMARY TREATMENT CENTRE.**

The agreement made with the Committee of the Cumberland Infirmary, providing for the conversion and equipment of rooms in the existing buildings, has not come into operation.

A scheme for temporary alterations in the rooms now in use was put forward, and was approved by the County Council and the Cumberland Infirmary Committee, but the Ministry of Health is unable now to provide the necessary grant.

No alteration or improvement, therefore, has been made in the accommodation, which is inadequate and unsuitable for the purposes of a Venereal Diseases Clinic.

During the year one male patient residing in Carlisle was admitted as an emergency in-patient with the consent of the Secretary and House Surgeon of the Infirmary. Thereafter the Infirmary Committee decided that in future any patient admitted as an in-patient must be



retained in the rooms allotted to the Venereal Diseases Department. As there is no suitable accommodation there for in-patients, the present position is that, for practical purposes, no patient, emergency or otherwise, can be admitted to the Cumberland Infirmary.

One female patient residing in the County, who could not be treated in the out-patient Clinic, and who could not obtain home treatment, was under treatment as an in-patient at the Hope Hospital, Leeds, for 53 days during the year.

The out-patient Clinic has been carried on in the temporary accommodation as in 1920. Clinics were held on Mondays, Wednesdays and Thursdays, throughout the year.

During the year 69 persons residing in the County were under treatment or observation, being a decrease of 11 on the year 1920. Of these 39 suffered from Syphilis, 1 from Soft Chancre, 19 from Gonorrhœa, and 10 from conditions other than Venereal. The numbers of males and females were 46 and 23 respectively.

34 new cases attended for the first time during the year, compared with 61 in 1920. Excluding attendances in the intervals between Clinics for irrigation, the total attendances were 478, a decrease of 63 compared with 1920.

It will thus be seen that there has been a considerable falling off in the attendance of County patients at the Cumberland Infirmary.

Intermediate treatment for men by irrigation supervised by the Medical Orderly was provided daily, and 49 attendances from the County were recorded. No facilities for the intermediate treatment of females have been provided by the Infirmary. This is, of course, more necessary for Carlisle patients, as few County patients would be able to attend.

A complete analysis of the statistics for the Cumberland Infirmary is given in the accompanying forms V.R. 14 (No. 2 and 4).

A new electric lamp and resistance for use with the dark ground microscope was purchased, and has been of great assistance in the detection of Spirochaetes.

#### WHITEHAVEN INFIRMARY TREATMENT CENTRE.

As in 1920, Clinics were held every Friday throughout the year. The accommodation consists of a waiting room, casualty room used as the treatment room, and a small examination or consulting room. These rooms serve the purpose of an out-patient Clinic, the only serious objections being the small size of the examination and consulting room, and the fact that there is no means of heating it in winter, and the lack of accommodation for any microscopical work.

There is no provision for treatment, either for male or female patients in the intervals between Clinics. Hence the attendance of persons suffering from Gonorrhœa is poor.

A scheme was put forward for the conversion of the old ambulance house at the back entrance to the Infirmary into an irrigation room for men, to be in charge of a Medical Orderly, who would attend in the



evenings. The Infirmary was to provide additional nursing service for intermediate treatment of female patients in the out-patient Department. The scheme was approved by the County Council and the Infirmary Committee, but the Ministry of Health was unable to provide the necessary grant, and, therefore, nothing has been done.

There is no provision for the treatment of in-patients, emergency or otherwise. During the year one male patient was admitted with the consent of the House Surgeon, contrary to the rules of the Hospital. This was done because the patient would probably have died otherwise, and it is gratifying to know that treatment was successful. He was in Hospital 85 days.

One female patient, who could not be treated as an out-patient or at home, was admitted to the Hope Hospital, Leeds, where she was treated for 81 days during the year, and still remains under treatment.

Plans have been discussed with the Infirmary Committee for accommodation of the Clinic in Whitehaven Castle when the new hospital is opened there, but no definite decision has been arrived at.

In the out-patient Clinic during the year, 111 patients were under treatment or observation, an increase of 24 over the year 1920. Of these 60 suffered from Syphilis, 25 from Gonorrhœa, and 26 from conditions other than Venereal. The number of males and females respectively were 75 and 36.

The new cases numbered 74, as compared with 87 in 1920. 275 doses of Salvarsan Substitute were given, being identical with the figure for 1920. 131 pathological specimens were examined. The total attendances numbered 732, being 100 more than in 1920.

A complete analysis of the statistics is appended. (See Form V.R. 14, No. 5.)

#### MARYPORT TREATMENT CENTRE.

This Clinic was opened at the County Council Treatment Centre, 58 Curzon Street, on 28th June, 1920, and was closed on 28th June, 1921. The decision to close it and transfer the centre to Workington was arrived at after a review of the year's work. The small attendances did not justify the expense involved.

The reason of the small attendance appears to have been the situation of the Clinic. Curzon Street is one of the best residential streets of the town. The part of the street where No. 58 stands is a "blind end." Anyone approaching the house in daylight can be easily identified, and the purpose of his visit is known.

The equipment of the Clinic has been transferred to the County Council Treatment Centre, Victoria Buildings, Workington, where it is proposed to carry on the work. The transfer has received the approval of the Ministry of Health, but before the necessary plumbing work can be done the approval of the County Council has to be obtained. It is hoped that permission will soon be given to open the Clinic.

The site of the building at Workington is at a corner in a main thoroughfare in the shopping and business part of the town, the rooms being over a bank and a medical practitioner's consulting room.

The establishment of this Clinic will be to some extent experimental, but it should have a very much better prospect of success than the Maryport Clinic.

The number of patients who attended at Maryport during the six months of the year in which the Clinic was open was 19. Of these 14 suffered from Syphilis, one from Soft Chancre, and four from Gonorrhœa. These were 12 males and 7 females. There were only four new cases in 1921. The total attendances numbered 120.

A complete analysis of the statistics is given in Form V.R. 14, No. 6, which is appended.

## 2.—PATHOLOGICAL EXAMINATIONS.

As in former years, the specimens sent to an approved laboratory were examined by Professor Hutchens, University of Durham, Newcastle-on-Tyne. 44 specimens were examined there for medical practitioners in the County, and 235 sent from the Clinics. In addition, 17 specimens taken from patients residing in the County were examined by the Medical Officer. As there are no facilities for microscopical work at Whitehaven and Maryport, the last figure is small.

Arrangements have been made with the approval of the Ministry of Health to transfer the work to Professor Dean, University of Manchester, who already does the pathological work for the City of Carlisle. The new arrangement will come into operation on 1st February, 1922.

## 3.—PROVISION OF SALVARSAN SUBSTITUTE.

The number of practitioners in the County entitled to receive supplies of Salvarsan Substitute free of charge is now 13. The quantity supplied during the year amounted to 153 doses, and included Novarsenobillon, Neokharsivan and Galyl.

## 4.—PROPAGANDA.

A series of lectures and addresses was given in Cumberland and Carlisle by Mr. Robert Whaites, representing the National Council for Combating Venereal Disease, in October and November, 1921. Lantern or Cinema Lectures were given in Whitehaven, Maryport, Workington, Wigton, Aspatria, Cleator Moor, Frizington, Cockermouth, and Penrith, and also in Carlisle, where, in addition, meetings were held in the principle works. £100 had been authorised to defray the cost of this campaign. The total cost did not exceed £70. Most of the meetings were well attended, and a general desire for information was shown.

The Clinics at Carlisle and Whitehaven were also advertised by poster during the year.

## 5.—CONCLUSIONS MADE FROM THE WORK DONE DURING THE YEAR.

On comparing the statistics for 1920 and 1921, one is at once struck by the decrease in the number of new cases of Venereal Disease attending the Clinics; while the total attendances, total number of persons under treatment, and consequently, total number of doses of Salvarsan Substitute given, and of tests done, have increased.

	Total Number of Persons under Treatment or Observation.			Doses of Salvarsan Substitute given.			Wassermann Tests.	
	1920.	1921.	Increase or Decrease.	1920	1921.	Increase or Decrease.	1920.	1921. Increase or Decrease.
1. Cumberland Patients ..	185	199	*14	545	524	†21	189	188 †1
2. Carlisle Patients ..	192	236	*44	439	552	*113	178	223 *45
3. Cumberland Infirmary Clinic ..	298	341	*43	743	764	*21	284	306 *22
4. Whitehaven Clinic ..	87	111	*24	275	275	—	92	101 *9
5. All Clinics ..	405	471	*66	1055	1098	*43	385	420 *35



		<i>New Cases.</i>		<i>Total Attendances.</i>			
		1920. 1921.		<i>Increase or Decrease</i>	1920. 1921.		<i>Increase or Decrease</i>
1. Cumber-	Syphilis . .	99	50	†49	839	848	*9
land	Soft Chancre	1	1	—	1	2	*1
Patients	Gonorrhœa . .	44	25	†19	381	427	*46
(All	Non-Venereal	22	36	†14	44	53	*9
Clinics)	<i>Total</i> . .	166	112	†54	1265	1330	*65
2. Carlisle . .	Syphilis . .	70	65	†5	683	903	*220
Patients	Soft Chancre	4	4	—	20	20	—
	Gonorrhœa . .	52	57	*5	731	827	*96
(All atten-	Non-Venereal	28	26	†2	65	42	†23
ded at	<i>Total</i> . .	154	152	†2	1499	1792	*293
Carlisle).							
3. Cumber-	Syphilis . .	108	88	†20	1123	1243	*120
land	Soft Chancre	5	4	†1	21	20	†1
Infirmery	Gonorrhœa	85	73	†12	1066	1022	†44
Clinic	Non-Venereal	37	39	*2	93	62	†31
(All Areas)	<i>Total</i> . .	235	204	†31	2303	2347	*44
4. White-	Syphilis . .	54	31	†23	447	460	*13
haven	Soft Chancre	—	—	—	—	—	—
Infirmery	Gonorrhœa	18	17	†1	156	236	*80
Clinic	Non-Venereal	15	26	*11	29	36	*7
(All Areas)	<i>Total</i> . .	87	74	†13	632	732	*100
5. All Clinics	Syphilis . .	176	122	†54	1619	1780	*161
including	Soft Chancre	5	5	—	21	14	†7
Maryport	Gonorrhœa . .	109	90	†19	1267	1304	*37
	Non-Venereal	52	65	*13	122	101	†21
(All Areas)	<i>Total</i> . .	342	282	†60	3029	3199	*170

† decrease

\* increase

The decline in the number of new cases of Venereal Disease may be accounted for in the following ways :—

- (1) Waning popularity of the Clinics.
- (2) More treatment being undertaken by practitioners.
- (3) Decline in the incidence of Venereal Disease.
- (4) The year 1920, being the first complete year in which the Clinics were open, was an abnormal year, there being an accumulation of cases waiting for treatment.

(1) The first suggestion may be dismissed, for the total attendances have increased, and the total number of persons dealt with has increased



and there has been an increase in the number of new patients seeking advice, and found to be suffering from some condition other than Venereal.

(2) No sudden enthusiasm in the treatment of Venereal Disease by medical practitioners has been observed in the County. On the contrary, a larger proportion of cases attending the Clinics are now referred by doctors than formerly.

(3) A decline in the incidence is a reasonable explanation, as a very large number of infective persons have been rendered non-infective by treatment at the Clinics. This is especially true with regard to Syphilis. Unemployment and scarcity of money must also be taken into account.

(4) The abnormally large number of new cases in 1920 is probably the chief factor in the decline of 1921. No definite conclusion can be arrived at until another year has elapsed.

With a view to throwing further light on the subject of a possible decline in the incidence of Venereal Diseases in the district, the following investigation was undertaken.

All cases of Primary and Early Secondary Syphilis, and of Acute Gonorrhœa, attending all the Clinics for the first time in 1920 and in 1921 were taken. Only those cases in which the history and clinical signs indicating recent infection were quite definite were counted. The date of first attendance at the Clinic (not the date of infection or of onset) was taken in determining the year in which each case was to be included.

Table 2 shows the results obtained.

<i>Table 2.</i>								
All Clinics, Cumberland and Carlisle.								
<i>Recent Infections only.</i>				1920.		1921.		<i>Decrease.</i>
Syphilis	..	..	..	56	..	42	..	14
Gonorrhœa	..	..	..	48	..	31	..	17
Total				104	..	73	..	31

It will be seen that there was a total decrease of 31 cases of undoubtedly recent origin in the year 1921, and it is, therefore, nearly certain that there has been a decline in the incidence of Venereal Disease in the past year. This decline at any rate can be partly attributed to the treatment carried out at the Clinics.

In view of the fact that so many patients cease to attend before completing their treatment at the Clinics, the question has been raised whether it is worth while continuing the work.

To estimate accurately the number of patients who ceased to attend in 1921, it is necessary to add to the figure given in the table on Form V.R. 14 (*i.e.*, number of patients who did not attend after 30th June, 1921), that portion of those marked "still attending on 1st January, 1922," which will have to be marked "ceased to attend 1922." This cannot be ascertained at present, but can be accurately estimated by taking it at the same percentage as in the previous year.

Any 1921 cases who cease to attend in any year subsequent to 1922 may be disregarded as they will certainly have been rendered non-infective if not cured by that time.

Table 3 shows the resulting figures.

*Table 3.*  
Percentage "Ceased to Attend," and Percentage "Rendered Non-infective."

1.	2.	3.			4.			5.	6.
	Total number of persons under treatment or observation in 1921.	Number ceased to attend in 1921, and will cease to attend in 1922 (calculated).			Percentage ceased to attend in 1921, and will cease to attend in 1922 (calculated).			Percentage discharged cured, transferred to other Centres, or remaining under treatment.	Percentage rendered non-infective or cured (Sum of 4 b and 5.)
		(a) Before completion of a course of treatment.	(b) After completion of a course of treatment.	TOTAL (a) and (b).	(a) Before completion of a course of treatment.	(b) After completion of a course of treatment.	TOTAL (a) and (b).		
Syphilis ..	253	60	124	184	23.7	49.0	72.7	27.3	76.3
Gonorrhœa	146	84	7	91	57.5	4.8	62.3	37.7	42.5
Total ..	399	144	131	275	36.1	32.8	68.9	31.1	63.9

#### NOTES ON TABLE 3.

##### *Column 1.*

Cases of Soft Chancre have not been included, as the figures are too small to be of value.

##### *Column 3.*

Figures obtained by adding to the numbers who did not attend after 30th June, 1921, the numbers who were under treatment or observation in 1921, and who will cease to attend in 1922, calculated on the percentage for the previous year.

##### *Column 5.*

Patients marked "Transferred" would practically all continue treatment, as only those were so marked who specially asked for their case records on leaving the district or for whom definite arrangements for treatment elsewhere were made. The number "remaining under treatment" is arrived at after deducting the calculated number of those who will cease to attend in 1922. The sum of figures in Column 5 and the totals in Column 4 equal 100.

*Column 6.*

It is taken for granted that those who completed a course of treatment or remained under treatment have been, or will be, rendered non-infective.

On looking at the figures in the last column of Table III., it will be seen that 76.3% of all cases of Syphilis, and 42.5% of Gonorrhœa are rendered non-infective or are cured.

Both of these figures are actually considerably higher. There are a number of cases ceasing to attend before completing a course of treatment who are cured, and a very large number non-infective at the time they ceased to attend. There is also an unknown number who continue treatment elsewhere on ceasing to attend the clinic.

The figure for Gonorrhœa is no doubt very much below the real percentage, very many cease to attend because they are cured, and are unwilling to undergo the necessary tests, which take several weeks, before being discharged by the Medical Officer.

On the whole one is quite safe in saying that over 70% of all cases of Venereal Disease are either rendered non-infective or are cured. Surely under these circumstances it is worth while carrying on the work.

The actual number of patients suffering from Syphilis and discharged cured during the year is inconsiderable (six). The reason is that no case is discharged until he has been under observation for two years after completing his treatment. The treatment on an average lasts about nine months, so that only cases treated elsewhere prior to the opening of the Clinics in Cumberland and Carlisle have had time to complete the period of observation.

During the year a special Report on Congenital Syphilis in children of school age was made for the information of the Board of Education. Owing to the comparatively small number of cases the statistics could not be of very great value.

## 6.—SUMMARY OF IMPROVEMENTS URGENTLY REQUIRED.

### *Cumberland Infirmary.*

A Special Report was submitted during the year detailing the requirements. These are, briefly :—

Alterations, temporarily or otherwise, in the premises, particularly the laying on of water and gas, and painting.

Facilities for the treatment of women suffering from Gonorrhœa by a nurse in the intervals between the Clinics.

Provision of a more suitable irrigation room for men.

Provision of beds for in-patients, emergency or otherwise.

### *Whitehaven Infirmary.*

Provision of intermediate treatment for men suffering from Gonorrhœa, in the intervals between Clinics, with a Medical Orderly in charge.



Provision of intermediate treatment for women suffering from Gonorrhœa in the intervals between Clinics, with a nurse in charge.

Accommodation for Microscopical work.

Beds for in-patients, emergency or otherwise.

Heating of the consulting room in Winter.

*Workington Clinics.*

Opening the Clinic.

Appointment of a part-time Medical Orderly if it is found that the attendance is sufficient to justify this.

7.—RECOMMENDATIONS AS TO FUTURE EXTENSION OF THE SCHEME.

Establishment of a Clinic at Penrith.

This should be done as soon as suitable accommodation can be provided at the treatment centre, 20 Southend Road.

Other centres in Cumberland where Clinics should be provided are Millom and Maryport. In the latter town a good situation is essential; the County Treatment Centre being unsuitable.

## **Maternity and Child Welfare**

107 Midwives were on the Roll during the year; 89 trained, and 18 bona fide. 349 visits of regular inspection were made and 71 special visits were paid by the Inspector who is also Superintendent of the Cumberland Nursing Association.

The Midwives attended 990 cases and acted as Nurses in 670 cases.

The following is a summary of the work done by Nurses and Health Visitors during the year:—

				<i>By District Nurses.</i>	<i>By Health Visitors.</i>
Visits to Infants (new cases)	..	..	..	2382	1108
Do. (old cases)	..	..	..	18900	3300
Ante-Natal visits	..	..	..	3300	19
Visits to Children 1—5.	..	..	..	2146	136

The supply of milk to expectant and nursing mothers and young children has had to be continued on a large scale owing to so much unemployment in the West of the County.

I am much indebted to Dr. Quine, Medical Officer of Health of Arlecdon and Frizington, for so kindly undertaking this work in his Area

I have the honour to be,

Mr. Chairman, Ladies, and Gentlemen.

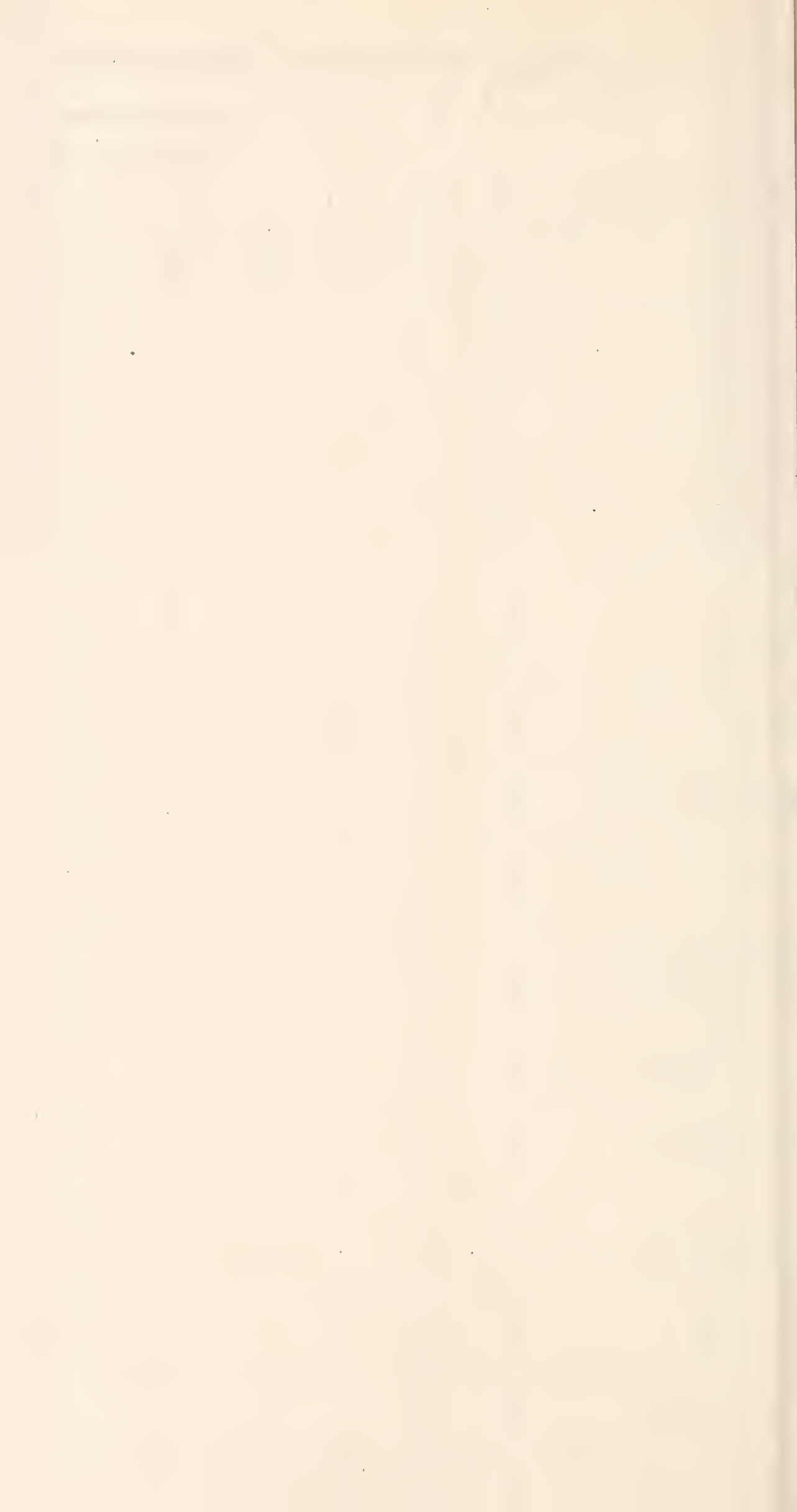
Your obedient servant,

F. H. MORISON, M.D., D.P.H.  
*County Medical Officer of Health.*



# Causes of Death at Different Periods of Life in the Administrative County of Cumberland, 1921.

CAUSES OF DEATH.		Sex.	All Ages.	AGGREGATE OF URBAN DISTRICTS.										AGGREGATE OF RURAL DISTRICTS.									
				0—	1—	2—	5—	15—	25—	45—	65—	75—	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—	
ALL CAUSES		M ..	754 ..	157 ..	25 ..	16 ..	31 ..	36 ..	81 ..	155 ..	142 ..	111 ..	576 ..	98 ..	14 ..	17 ..	8 ..	22 ..	58 ..	118 ..	118 ..	123 ..	
		F ..	812 ..	124 ..	29 ..	29 ..	29 ..	47 ..	90 ..	169 ..	137 ..	158 ..	561 ..	58 ..	16 ..	8 ..	13 ..	27 ..	61 ..	127 ..	98 ..	153 ..	
1	Enteric Fever	M ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		F ..	1 ..	—	—	—	—	—	1 ..	—	—	—	—	—	—	—	—	—	—	—	—	—	
2	Smallpox	M ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		F ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3	Measles	M ..	1 ..	—	1 ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		F ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4	Scarlet Fever	M ..	2 ..	—	—	—	2 ..	—	—	—	—	—	2 ..	—	—	1 ..	1 ..	1 ..	—	—	—	—	
		F ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
5	Whooping Cough	M ..	3 ..	2 ..	1 ..	—	—	—	—	—	—	—	3 ..	1 ..	1 ..	1 ..	—	—	—	—	—	—	
		F ..	16 ..	7 ..	3 ..	6 ..	—	—	—	—	—	—	1 ..	1 ..	—	—	—	—	—	—	—		
6	Diphtheria	M ..	12 ..	—	1 ..	4 ..	6 ..	1 ..	—	—	—	—	7 ..	—	3 ..	2 ..	2 ..	—	—	—	—	—	
		F ..	13 ..	—	1 ..	7 ..	5 ..	—	—	—	—	—	6 ..	—	1 ..	3 ..	1 ..	—	—	1 ..	—	—	
7	Influenza	M ..	13 ..	—	—	—	—	—	5 ..	3 ..	2 ..	3 ..	15 ..	1 ..	2 ..	—	—	—	3 ..	5 ..	2 ..	1 ..	
		F ..	14 ..	1 ..	—	—	1 ..	1 ..	2 ..	3 ..	4 ..	2 ..	14 ..	1 ..	—	—	—	1 ..	1 ..	5 ..	6 ..		
8	Encephalitis lethargica	M ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		F ..	2 ..	—	—	1 ..	—	—	—	—	—	1 ..	—	—	—	—	—	—	—	—	—	—	
9	Meningococcal meningitis	M ..	—	—	—	—	—	—	—	—	—	—	1 ..	1 ..	—	—	—	—	—	—	—	—	
		F ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10	Tuberculous of respiratory system	M ..	41 ..	—	—	—	—	11 ..	18 ..	10 ..	2 ..	—	23 ..	—	—	—	2 ..	13 ..	6 ..	2 ..	—	—	
		F ..	58 ..	—	1 ..	—	1 ..	18 ..	29 ..	8 ..	1 ..	—	46 ..	—	—	1 ..	2 ..	11 ..	23 ..	8 ..	1 ..	—	
11	Other Tuberculous Diseases	M ..	15 ..	2 ..	2 ..	2 ..	5 ..	3 ..	1 ..	—	—	—	6 ..	—	—	1 ..	1 ..	3 ..	—	—	—	—	
		F ..	17 ..	2 ..	1 ..	2 ..	6 ..	4 ..	1 ..	1 ..	—	—	10 ..	1 ..	1 ..	2 ..	1 ..	3 ..	—	—	—	—	
12	Cancer, malignant Disease	M ..	50 ..	—	—	—	—	2 ..	4 ..	17 ..	18 ..	9 ..	50 ..	—	—	1 ..	—	—	3 ..	22 ..	16 ..	8 ..	
		F ..	79 ..	—	—	—	—	—	8 ..	38 ..	20 ..	13 ..	68 ..	—	—	—	—	2 ..	37 ..	20 ..	9 ..	—	
13	Rheumatic Fever	M ..	6 ..	—	—	1 ..	1 ..	4 ..	—	—	—	—	2 ..	—	—	—	1 ..	1 ..	—	—	—	—	
		F ..	8 ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14	Diabetes	M ..	7 ..	—	—	—	1 ..	2 ..	—	3 ..	1 ..	—	3 ..	—	—	—	—	—	1 ..	2 ..	—	—	
		F ..	8 ..	—	—	—	—	—	2 ..	4 ..	2 ..	—	3 ..	—	—	—	—	—	—	1 ..	2 ..	—	
15	Cerebral haemorrhage	M ..	48 ..	—	—	—	—	—	1 ..	20 ..	15 ..	12 ..	32 ..	—	—	—	—	—	4 ..	6 ..	9 ..	13 ..	
		F ..	68 ..	—	—	—	—	—	—	19 ..	27 ..	22 ..	50 ..	—	1 ..	—	—	—	1 ..	16 ..	12 ..	20 ..	
16	Heart Disease	M ..	65 ..	—	—	—	2 ..	2 ..	4 ..	15 ..	25 ..	17 ..	75 ..	—	—	—	—	—	4 ..	16 ..	26 ..	29 ..	
		F ..	87 ..	—	—	—	—	5 ..	6 ..	33 ..	25 ..	18 ..	69 ..	—	—	—	—	3 ..	2 ..	17 ..	25 ..	22 ..	
17	Arterio-sclerosis	M ..	13 ..	—	—	—	—	—	—	5 ..	6 ..	2 ..	21 ..	—	—	—	—	—	—	2 ..	9 ..	10 ..	
		F ..	6 ..	—	—	—	—	—	—	1 ..	3 ..	2 ..	10 ..	—	—	—	—	—	3 ..	3 ..	4 ..	4 ..	
18	Bronchitis	M ..	52 ..	13 ..	4 ..	1 ..	1 ..	—	1 ..	5 ..	15 ..	12 ..	30 ..	6 ..	2 ..	1 ..	—	—	1 ..	1 ..	8 ..	11 ..	
		F ..	49 ..	11 ..	1 ..	—	—	—	—	9 ..	13 ..	15 ..	29 ..	12 ..	2 ..	1 ..	—	—	1 ..	—	—	11 ..	
19	Pneumonia (all forms)	M ..	69 ..	20 ..	6 ..	4 ..	—	3 ..	10 ..	17 ..	5 ..	4 ..	29 ..	8 ..	2 ..	3 ..	—	4 ..	1 ..	5 ..	4 ..	2 ..	
		F ..	43 ..	11 ..	6 ..	6 ..	4 ..	—	4 ..	5 ..	3 ..	4 ..	27 ..	7 ..	3 ..	—	2 ..	—	4 ..	5 ..	2 ..	4 ..	
20	Other Respiratory Diseases	M ..	17 ..	2 ..	—	—	—	—	1 ..	10 ..	3 ..	2 ..	8 ..	—	—	—	—	—	—	6 ..	1 ..	1 ..	
		F ..	5 ..	—	—	—	1 ..	—	—	1 ..	1 ..	2 ..	10 ..	—	—	—	—	—	1 ..	4 ..	3 ..	2 ..	
21	Ulcer of stomach or duodenum	M ..	5 ..	—	—	—	—	2 ..	2 ..	—	—	1 ..	2 ..	—	—	—	—	—	1 ..	—	1 ..	—	
		F ..	2 ..	—	—	—	—	—	—	—	—	—	3 ..	—	—	—	—	—	2 ..	1 ..	—	—	
22	Diarrhoea, &c.	M ..	33 ..	20 ..	6 ..	1 ..	—	—	1 ..	—	1 ..	4 ..	23 ..	17 ..	—	3 ..	—	—	1 ..	2 ..	—	—	
		F ..	31 ..	20 ..	7 ..	—	—	—	—	2 ..	1 ..	1 ..	15 ..	5 ..	4 ..	—	—	—	—	3 ..	—	3 ..	
23	Appendicitis and Typhlitis	M ..	6 ..	—	—	—	2 ..	1 ..	2 ..	1 ..	—	—	3 ..	—	—	—	—	2 ..	—	—	1 ..	—	
		F ..	7 ..	—	—	1 ..	2 ..	1 ..	2 ..	—	1 ..	—	3 ..	—	—	—	—	1 ..	1 ..	—	—	—	
24	Cirrhosis of Liver	M ..	4 ..	—	—	—	—	—	—	3 ..	1 ..	—	3 ..	—	—	—	—	—	—	—	—	—	
		F ..	2 ..	—	1 ..	—	—	—	—	1 ..	—	—	—	—	—	—	—	—	—	—	—	—	
25	Acute and chronic nephritis	M ..	21 ..	1 ..	—	—	1 ..	—	3 ..	7 ..	9 ..	—	9 ..	—	1 ..	—	—	1 ..	1 ..	6 ..	—	—	
		F ..	17 ..	—	—	—	—	—	3 ..	6 ..	7 ..	1 ..	10 ..	—	—	—	—	1 ..	2 ..	3 ..	2 ..	2 ..	
26	Puerperal sepsis	M ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		F ..	3 ..	—	—	—	—	2 ..	1 ..	—	—	—	2 ..	—	—	—	1 ..	1 ..	—	—	—	—	
27	Other accidents and diseases of pregnancy etc.	M ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		F ..	13 ..	—	—	—	—	4 ..	9 ..	—	—	—	6 ..	—	—	—	2 ..	4 ..	—	—	—	—	
28	Congenital Debility, &c.	M ..	62 ..	62 ..	—	—	—	—	—	—	—	—	47 ..	47 ..	—	—	—	—	—	—	—	—	
		F ..	47 ..	47 ..	—	—	—	—	—	—	—	—	22 ..	22 ..	—	—	—	—	—	—	—	—	
29	Suicide	M ..	7 ..	—	—	—	—	—	1 ..	5 ..	1 ..	—	15 ..	—	—	—	—	—	3 ..	8 ..	4 ..	—	
		F ..	4 ..	—	—	—	—	—	3 ..	—	—	1 ..	1 ..	—	—	—	—	—	—	1 ..	—	—	
30	Violence, apart from Suicide	M ..	34 ..	1 ..	—	1 ..	5 ..	2 ..	14 ..	6 ..	2 ..	3 ..	30 ..	—	2 ..	—	2 ..	5 ..	6 ..	9 ..	3 ..	3 ..	
		F ..	16 ..	—	1 ..	2 ..	3 ..	2 ..	1 ..	4 ..	1 ..	2 ..	13 ..	—	—	—	—	3 ..	3 ..	4 ..	—	3 ..	
31	Other Defined Diseases	M ..	156 ..	34 ..	3 ..	2 ..	5 ..	5 ..	13 ..	22 ..	29 ..	43 ..	130 ..	17 ..	1 ..	4 ..	2 ..	4 ..	12 ..	18 ..	27 ..	45 ..	
		F ..	192 ..	25 ..	6 ..	4 ..	5 ..	6 ..	15 ..	28 ..	28 ..	75 ..	138 ..	9 ..	4 ..	—	5 ..	3 ..	10 ..	18 ..	22 ..	67 ..	
32	Causes ill-defined or Unknown	M ..	12 ..	—	1 ..	—	—	—	—	4 ..	7 ..	—	7 ..	—	—	—	—	1 ..	—	3 ..	3 ..	—	
		F ..	4 ..	—	1 ..	—	—	—	—	3 ..	—	—	3 ..	—	—	—	—	—	2 ..	1 ..	—	—	



# Causes of Death in the Administrative Areas in the County of Cumberland, 1921.

CAUSES OF DEATH.	Arlecdon and Frizlington U.D.		Aspatria U.D.		Cleator Moor U.D.		Cockermouth U.D.		Egremont U.D.		Harrington U.D.		Holme Cultram U.D.		Keswick U.D.		Maryport U.D.		Millom U.D.		Penrith U.D.		Whitehaven M.B.		Wigton U.D.		Workington M.B.		Alston with Garrigill R.D.		Booth R.D.		Brampton R.D.		Carlisle R.D.		Cockermouth R.D.		Longtown R.D.		Penrith R.D.		Whitehaven R.D.		Wigton R.D.					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
	..	30	43	17	12	56	55	27	34	51	37	29	30	20	24	30	29	62	77	56	70	53	64	137	133	31	27	155	177	22	23	26	34	55	52	66	77	132	131	33	37	86	64	78	82	77	61			
CIVILIANS ONLY ALL CAUSES	..	30	43	17	12	56	55	27	34	51	37	29	30	20	24	30	29	62	77	56	70	53	64	137	133	31	27	155	177	22	23	26	34	55	52	66	77	132	131	33	37	86	64	78	82	77	61			
1 Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
2 Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
3 Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4 Scarlet Fever	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5 Whooping Cough	..	..	1	..	1	..	1	..	1	..	1	..	1	..	..	..	1	..	1	..	4	..	3	..	..	..	..	..	5	1	..	..	1	..	..	..	1	..	1	..	..	..	..	1	1	..	..	..	1	..
6 Diphtheria and Croup	..	..	2	..	..	..	..	..	..	5	2	1	1	..	1	..	..	..	1	..	1	1	..	1	..	..	..	4	4	1	..	1	..	..	..	..	..	1	..	3	..	..	..	..	..	..	..	..	1	..
7 Influenza	..	..	..	..	1	1	1	1	1	..	4	..	1	..	1	..	1	2	3	1	1	..	2	1	..	..	3	3	1	2	2	..	2	..	3	3	1	3	1	3	1	..	1	1	1	2	..	..	1	..
8 Encephalitis lethargica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9 Meningococcal meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10 Tuberculous Meningitis	2	1	1	..	3	5	1	3	2	1	1	1	1	..	1	2	1	1	5	3	3	3	5	14	14	1	2	7	16	3	2	2	4	2	2	6	8	2	7	2	4	2	4	4	7	..	8	..	..	
11 Other Tuberculous Diseases	..	1	..	1	3	2	1	..	..	1	1	1	1	..	..	1	1	1	2	..	..	..	1	2	3	1	1	4	4	..	..	2	..	..	1	..	2	8	2	7	2	4	4	7	..	8	..	..		
12 Cancer, Malignant Disease	..	6	1	2	4	..	5	5	1	2	..	2	..	2	2	4	6	10	4	10	5	10	10	10	4	1	8	15	..	3	3	5	6	5	8	10	11	12	2	4	8	9	4	10	8	10	..	..		
13 Rheumatic Fever	..	..	..	..	..	..	1	2	..	1	..	..	..	1	..	..	..	1	..	..	1	..	2	..	1	..	..	1	3	..	..	..	..	..	..	..	..	11	12	2	4	8	9	4	10	8	10	..	..	
14 Diabetes	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	2	..	..	..	1	3	1	1	..	..	2	1	1	..	..	..	..	..	..	1	..	1	..	..	1	1	2	..	..	..	..	..	..	
15 Cerebral haemorrhage	1	5	2	..	3	7	3	3	1	1	1	3	2	2	3	1	6	6	5	5	1	3	1	1	..	..	2	1	1	..	..	..	..	1	..	1	..	1	..	..	1	1	1	2	..	..	..	..		
16 Heart Disease	1	5	4	5	5	4	1	1	2	3	1	4	1	3	5	2	6	10	3	10	10	12	11	9	1	5	14	14	..	1	6	10	5	4	12	19	16	4	2	19	13	8	4	10	10	..	..			
17 Arterio-sclerosis	1	..	..	..	1	..	..	1	..	..	1	..	1	..	1	1	1	2	..	..	1	2	4	..	1	..	1	1	1	..	..	..	4	1	3	1	2	3	3	3	3	..	1	..	4	10	10	..	..	
18 Bronchitis	..	5	..	..	3	5	1	1	1	1	1	2	1	2	1	5	3	9	5	1	1	14	11	3	3	7	14	..	1	2	5	4	2	1	7	9	..	2	6	3	1	7	8	1	..	..	..	..		
19 Pneumonia (all forms)	2	1	..	1	6	2	1	1	7	4	7	2	1	1	4	5	6	6	3	2	3	14	13	2	1	13	4	..	2	2	6	5	5	10	1	3	7	..	4	7	2	..	..	..	..	..	..			
20 Other Respiratory Diseases	3	..	..	2	..	..	3	..	..	..	..	..	1	..	1	..	2	..	1	..	3	..	1	..	1	1	..	..	1	2	..	..	..	..	3	7	..	4	7	2	..	..	..	..	..	..	..			
21 Ulcer of stomach or duodenum	..	..	..	..	1	1	..	1	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	1	2	..	..	..	..	..		
22 Diarrhoea, &c. (under 2 years)	3	..	..	..	..	..	2	1	1	1	1	..	2	..	2	..	1	4	3	2	..	8	4	1	..	5	15	..	1	2	..	2	..	..	..	10	4	..	..	..	..	..	3	3	..	1	..	2	..	
23 Appendicitis and Typhlitis	..	..	..	..	..	..	1	1	..	..	..	..	1	..	1	..	1	..	..	2	1	..	..	..	..	1	4	..	..	..	..	..	..	..	..	10	4	..	..	..	..	..	3	3	..	1	..	..		
24 Cirrhosis of Liver	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	1	..	1	..	..	2	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..	1	1	..	..	..	..	..		
25 Acute and chronic nephritis	1	..	2	3	1	..	..	1	..	1	..	..	1	1	1	2	1	1	2	1	1	..	5	4	..	2	5	5	1	4	..	1	..	1	..	1	4	1	1	..	3	1	1	..	1	..	..	..		
26 Puerperal sepsis	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	..	..	2	5	5	1	4	..	1	..	1	..	1	4	1	1	..	3	1	1	..	1	..	..	..		
27 Other accidents and diseases of pregnancy and parturition	..	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1	..	3	..	1	..	2	..	..	3	..	..	2	..	..	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..		
28 Congenital debility and malformation premature birth.	4	4	3	..	7	4	..	..	3	3	3	2	1	2	2	..	5	5	4	8	1	1	10	9	4	2	15	7	2	1	..	1	3	2	2	1	12	9	6	..	7	1	6	4	9	3	..	..		
29 Suicide	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	1	..	..	1	..	1	2	..	2	..	..	1	..	..	..	..	..	2	5	..	4	..	..	..	..	3	..	1	..	..	..	..	..	..	
30 Other deaths from violence	..	3	..	2	2	3	..	5	1	..	3	..	1	..	1	..	2	..	2	3	1	1	8	3	2	..																								





(APPENDIX)

CUMBERLAND COUNTY COUNCIL

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Englethwaite Industrial  
Colony

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ANNUAL REPORT

OF THE

Medical Superintendent

MARK S. FRASER, M.D., D.P.H., F.R.C.S. Ed.

FOR THE

Year ended March 31st, 1922

## ENGLETHWAITE INDUSTRIAL COLONY.

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### *Hospitals Sub-Committee.*

*Chairman.*—Major H. BALLANTINE DYKES, D.S.O.

*Vice-Chairman.*—LADY MABEL HOWARD, C.B.E.

Mr. J. J. ADAMS

Mr. HUGH JACKSON

Mr. W. DOBSON

Mr. J. MARSHALL

Dr. J. H. DUDGEON

Mr. J. MC.GOWAN

Mr. M. ECKERSLEY

Mr. R. RIGG

Mr. T. GAVAN-DUFFY

Rev. Canon SUTTON, C.B.E.

Mrs. LACY THOMPSON

### *House and Finance Committee.*

*Chairman.*—LADY MABEL HOWARD C.B.E.

Dr. J. H. DUDGEON

Mr. M. ECKERSLEY

Major H. Ballantine Dykes

Mr. T. GAVAN-DUFFY

D.S.O.

Mr. J. MC.GOWAN

### *Medical and Nursing Staff.*

*Medical Superintendent.*—MARK S. FRASER, M.D., D.P.H.,  
F.R.C.S. Ed.

*Matron.*—Miss B. HENNESSY.

*Sister.*—Miss M. WHITTET

### *Training and Outdoor Staff.*

#### FOREMEN.

*Electrician and Head Gardener.*—A. H. SIMMONDS.

*Poultry Farm.*—J. CALDER.

*Head Joiner.*—A. TOWNROW.

#### UNDER-FOREMEN.

*Market Gardener.*—J. W. PAGAN.

*Poultry Farm.*—P. KEVANY.





MAIN BUILDINGS, ENGLETHWAITE HALL.

[*Tassell, Carlisle.*





# Englethwaite Industrial Colony

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## GENERAL STATEMENT.

In July, 1920, the first Medical Superintendent submitted "A Memorandum on the Colony Treatment of Tuberculous Patients, with Special Reference to the Englethwaite Industrial Colony."

This Memorandum dealt chiefly with the aims and objects of Colony Treatment, giving a broad resumé of the Colony Movement in other areas, and making clear the position of Englethwaite up to that date. At the end of the first financial year it was considered unnecessary to issue an Annual Report, especially as the Memorandum above-mentioned had previously been published.

The following report summarises the whole position of the Colony from the day the property was purchased to the end of the second financial year, March 31st, 1922.

## ENGLETHWAITE INDUSTRIAL COLONY.

In August 1919, the Cumberland County Council purchased the Englethwaite Hall Estate, comprising a mansion house, a small house, two cottages, recreation hall and out-buildings, for the sum of £5,083.

The Council were among the first, if not actually the first in England, to undertake a Colony Scheme for Tuberculous Patients, as a charge on public funds.

### 1. SITUATION.

The Estate, although only  $6\frac{1}{2}$  miles from Carlisle, is situated in a sparsely populated district, well away from any large centre of population, the nearest village being a mile distant. It is, however, easily accessible by rail, being only a few minutes walk from Cotehill Station on the Midland Railway. The mansion house stands on rising ground (about 450 feet above sea-level), with a fairly easy gradient, on gravel soil, and has a southern aspect.

### 2. MAIN BUILDINGS.

(a) *Englethwaite Hall*, (hereinafter referred to as "The Hospital") was in very good condition when acquired by the County Council, and apart from a certain amount of painting, required very little in the way of repairs.



It contained the following rooms :—

#### GROUND FLOOR.

Dining Room	...Now Nursing Staff Dining Room.
Drawing Room	...Now Ward containing 6 beds.
Sitting Room	...Now Ward containing 4 beds.
Cloak Room ...	...Now Matron's Office.
Library ...	...Now Outdoor Staff Mess Room
Billiard Room	...Now Colonists' Mess Room.
Servants' Hall	...Now Domestic Staff Sitting Room.
Kitchen, Pantries, Store-rooms, Coal-House, &c., Engine-Room and Electric Power House.	

Basement containing central heating chamber and cellars.

#### FIRST FLOOR.

Bedroom ...	...Now Matron's Bed Sitting Room.
Bedroom ...	...Now Sister's Do. do.
Dressing Room	...Now Nurses' Spare Room.
Bath Room ...	...Used by Nursing Staff.
Bedroom ...	...Now Ward containing 5 beds.
Bedroom ...	... Do. do. 4 do.
Bedroom ...	... Do. do. 2 do.
Bedroom ...	... Do. do. 1 do.

#### SECOND FLOOR.

Bedroom ...	...Now Maids' Bedroom containing 3 beds.
Bedroom ...	... Do. do. do.
Bedroom (Small)	...Cook's Bedroom.
Bathroom ...	...Used by Domestic Staff.

The Domestic Staff quarters are reached by a separate staircase from the Kitchen premises, and are equipped with a fixed telescopic fire-escape.

The following alterations and additions to the Hospital have been carried out :—

- (1) Lavatory for Outdoor Staff.
- (2) Bath and Lavatory Block for Colonists.
- (3) Cloak Room for Colonists, containing hotwater pipes in the form of stands for hanging coats, etc.
- (4) Central Heating extended throughout buildings by means of extra radiators.
- (5) Radiator Boiler, which comprised three old sections, re-placed by one containing six new sections.
- (6) New small sectional boiler installed for extra hot water supply.
- (7) New large "Eagle" Range (capable of cooking for 75 people) fitted in Servants' Hall.
- (8) Old range in Kitchen, which cooks for 25, repaired.

(b) *Fellgarth*.—This block of buildings originally comprised several cottages, stables, etc., and had undergone repeated alterations and additions prior to purchase. When taken over it contained one house, two very small cottages, stable, garage, etc. The greater part of the block was in very bad repair, and much affected with dry rot. Considerable alterations and repairs were carried out to make the best use of the available accommodation.

The Buildings now contain the Medical Superintendent's house, a cottage occupied by the head gardener, a set of rooms intended for domestic staff quarters, but temporarily in use as a house for the poultry foreman, new electric power-house, garage and stable. Adjoining this block there is a cow-house, cart shed, and other out-buildings.

(c) *Recreation Room*.—This was built by a former occupier not many years ago as a gymnasium. It is an excellent building which may well be described as a hall, and can comfortably accommodate a large audience at lectures and concerts. It was formerly heated by two large fireplaces, but a small radiator boiler and radiators have now been installed.

(d) *Laundry*.—This building, erected by the County Council, is designed on up-to-date lines, and could deal with the washing of at least 100 colonists.

It contains a large boiler generating steam which is carried throughout the building to wash troughs, drying-rooms, etc. It is fitted with electric light, and equipped with modern appliances, *e.g.*, an electric washing machine and electric irons. By means of these mechanical aids all the work can be undertaken by a very reduced staff.

### 3. EQUIPMENT.

Practically all the equipment, including furniture, beds, etc., was purchased second-hand, at a very reasonable cost from Dispenishing Sales of Red Cross Hospitals, from Gretna Munition Factory, &c.

### 4. ELECTRIC LIGHTING.

The original plant supplied Englethwaite Hall only, and it was, therefore, necessary to install a larger and more modern plant of sufficient power to light, not only the Hospital, but all other buildings in the grounds, including workshops and shelters, and also to supply power to the laundry.

Cables have been laid to all buildings with the exception of the workshops and most recently erected shelters, and the corresponding wiring has been completed. A main cable has been carried to a point close to both workshops and shelters, and it is intended to carry light to these new shelters as soon as their permanent position has been approved by the Ministry of Health. At the same time, probably, the workshops will also be lighted.

External lights have been fixed where necessary throughout the grounds.

## 5. WATER SUPPLY.

The Colony has three sources of Water Supply, (1) The Main Supply which comes from springs in an adjoining property flowing by gravitation to tanks about fifty yards from the Hospital.

A deep cutting occurs at this point. The water is, therefore, taken in pipes under a bridge and pumped by means of a small petrol engine to the tanks in the main buildings. There were two tanks at the point above-mentioned, and it was found necessary to increase the storage accommodation to more than double its original capacity by the construction of two extra tanks. The tanks in the Hospital were sufficient for a house supply only, and from these tanks Fell Garth buildings were supplied by gravitation. A large new storage supply has now been obtained by fitting new tanks under Fell Garth roof, and pumping is carried out direct to these tanks. From Fell Garth pipes are carried round the Shelters Field to the Laundry, and the water flows by gravitation. As any further extensions will take place in the above field, the water supply is thus within easy reach.

(2) Another gravitation supply which, owing to having its source in alabaster, is too hard for general use, but which will rise to the tanks without pumping, could be used in case of fire.

(3) A supply from a well in the garden. The water is considered pure, but is only required for use in the greenhouse, vinery, etc.

## 6. SEWAGE DISPOSAL.

The original plant contained a septic tank and filter bed large enough for the sewage of a private house. For a large institution this was obviously insufficient. The septic tank









OPEN-AIR SHELTERS.

[Tassell, Carlisle.



accommodation has been enlarged to six times its original size, and an extra filter bed has been made. The effluent is carried in pipes under a railway, and finds its way into old sand-pits.

#### 7. SHELTERS.

Towards the end of 1920 six shelters of the Papworth design were bought from Papworth Industries.

During 1921-22 twelve shelters were constructed by the Colony Joinery Department. Three of these were of the Papworth design, and the remaining nine were of a new type, modified from the Papworth design, and costing much less to make. The saving in cost lies chiefly in the roof which is not so elaborate as a Papworth roof, and is, therefore, more easily made, and lighter to handle.

#### 8. ACCOMMODATION.

There is accommodation for 22 patients in the Hospital, and there are 18 shelters, 40 beds in all. The 12 new shelters are situated in the Shelters Field which lies close to the Hospital, and is large enough to allow for further building and shelter accommodation which may be required.

The six Papworth shelters are placed close to the Recreation Room, and are occupied by Outdoor Staff and Acting-Staff men, the idea being that Staff men should not have their quarters among Colonists.

The Ministry of Health have agreed in the meantime that the Colony shall contain 40 beds for the use of patients under treatment and training. It is hoped that before long it may be possible, by building new shelters for Staff men, to reserve the 40 beds for Colony patients, as sanctioned by the Ministry.

#### 9. FIRE PRECAUTIONS.

The Hospital and other buildings, including shelters and workshops, are protected by 15 Minimax Fire Extinguishers.

Two Colonists are placed in charge of each Minimax, with definite instructions as to their duties in case of fire. The services of the Carlisle Fire Brigade are available by arrangement with the City of Carlisle Council.



## COLONY ADMINISTRATION.

This must of necessity be considered under various sub-headings.

## 1. OBJECTS OF COLONY LIFE.

The main differences between Sanatorium treatment and Colony treatment are (1) that the duration of stay is much longer in the latter, and (2) that the whole basis of Colony treatment depends on graded exercise in the form of useful work.

Whereas Sanatorium treatment is given, as a rule, in periods of not more than three or four months duration, a Colonist is expected to complete at least a twelve months course of treatment and training, and longer if necessary, according to the judgment of the Medical Superintendent. The Colonist may be said to undergo a probationary period of two months, but, as he becomes fit for a reasonable amount of work, he is encouraged to decide which occupation he wishes to follow.

In making this decision he is advised to consider the possible openings for that particular occupation in his own home district.

It has been found in practice that it is desirable to give each man combined instruction in market gardening and poultry-keeping, instead of allowing him to spend the whole of his time in one of these departments, and at the same time to give him a general idea of simple rural carpentry, particularly so in the case of a man who is anxious to acquire something in the nature of a small holding.

Most Colonists have had some experience of Sanatorium life, and are aware that although they put on considerable weight while there, they usually lose it sooner or later on returning to their homes.

At Englethwaite it is explained to the Colonists that it is muscle not fat that it is desirable to acquire, and that muscle can only be developed by exercise, which here takes the form of work in the open air.

Colony Treatment is, in the case of the average early case, especially among working men, a desirable complement to Sanatorium treatment, if the patient is later to compete in the labour market with any prospect of success.

## 2. DISCIPLINE.

At Englethwaite the Chief aim is to create a good spirit among all ranks, as in the fostering of such a spirit much of the success of a Colony depends. It is impressed upon Colonists that in carrying out the regulations of the Colony, they are not only doing all in their power to help its progress, but are at the same time doing their best for their own future and the future of those who come after them. A live Colony can do more for the future of its men than can one in which the right spirit of co-operation is lacking, and whose rules are constantly being infringed.

To achieve this object much patience is required, but as Englethwaite continues to grow it becomes easier to imbue new arrivals with the Colony idea, because it pervades from older Colonists with whom they come in contact.

I am glad to report that the conduct of the great majority of the Colonists has been excellent.

The Regulations at Englethwaite are not severe, but are rigidly enforced. They are carefully drawn up entirely for the benefit of the Colonists, and no regulation is included which cannot reasonably be adhered to.

The following are the regulations :—

### ENGLETHWAITE INDUSTRIAL COLONY.

#### COLONISTS' REGULATIONS.

The working hours for patients will be fixed by the Medical Superintendent, and patients may be required, in rotation, to undertake certain orderly duties, such as carrying coal, clearing the recreation room, etc., under the orders of the Medical Superintendent.

No alcohol or drugs are to be taken unless prescribed by the Medical Superintendent. Any Colonist taking alcohol without the permission of the Medical Superintendent, or who is seen entering or leaving a Public House, is liable to DISMISSAL.

Colonists on admission are provided with a Thermometer in a metal case. If lost or broken it must be replaced at Colonist's own expense. Thermometers must be given up on the Colonist's discharge.

Smoking is strictly prohibited in wards, workshops and stores.

Colonists must observe punctually the hours for meals, for lights out, etc. (see time-tables on notice boards). No Colonist must absent himself from any meal without permission,

Colonists will leave their boots in the cloakroom before coming in for meals and before going to their wards. All men must wear slippers or light shoes in the recreation room.

Colonists must obtain permission from the Medical Superintendent or, in his absence, from the Matron, before proceeding anywhere by rail or motor, and Carlisle is out of bounds without permission.

Colonists must be in their shelters or wards at 9-30 p.m. each evening, or at such hours as may be directed by the Medical Superintendent.

Visitors are not allowed during working hours, without special permission of the Medical Superintendent.

Betting or gambling in any form is **STRICTLY PROHIBITED**. Colonists infringing this Rule are liable to **DISMISSAL**.

Spitting in the grounds, house, workshops or shelters is **STRICTLY PROHIBITED**. Colonists found doing so are liable to **DISMISSAL**. Sputum Flasks, when soiled, must be placed in the receptacle specially provided for the purpose. They must on no account be left or thrown about the buildings or grounds.

### 3. RECREATION.

It is important that means of healthy recreation for Colonists be provided, to which they may turn after their daily work is done.

During the Summer months recreation should be as far as possible in the open air, but in winter it must, of necessity, be carried on indoors.

The organization of such recreation should be left, where practicable, in the hands of the Colonists. At Englethwaite a representative Sports Committee, elected by the Colonists, arranges whist drives, billiard tournaments, etc., and during the Winter of 1921-22 a competition of this kind was held every Saturday evening with great success. The Colony is much indebted to the various business firms in Carlisle and district who kindly contributed prizes for these competitions.

The recreation hall is equipped with a billiard table, piano, gramophone, etc., and a substantial stage was erected by the Joinery Department during the Winter, which has been invaluable for concerts, lectures, etc.



Through the kindness of the following Carlisle and Cumwhinton Concert Parties a series of excellent concerts was held during the winter :—

“ The Aeolian Singers.”

“ The Apollo Quartette.”

Mr. Beeby's Concert Party.

The Church of Scotland Choir.

The Cumwhinton Choral Society.

“ The Orpheus Quartette.”

These Concerts were open to the public, and were much appreciated by both the colonists and their friends. No charge was made for admission, but a collecting box was handed round, and the proceeds were sufficient to defray the expense of bringing the parties to the Colony without any contribution whatsoever from the County Council. Any balance was given to the Colony Sports Fund.

Besides these, concerts, the colonists had the pleasure of having an interesting Lantern Lecture on his work with the Red Cross in France, by Mr. Norman Fletcher, Eden Brows; an instructive lecture on “ Potatoes ” by Mr. R. B. Strang, of the Ministry of Agriculture ; and an informal demonstration on felt slipper-making by Mrs. Mitten, Bowness-on-Solway.

In addition the colonists themselves gave two concerts. The tennis lawns at Englethwaite are in an unsatisfactory condition, and although bowls and croquet are played on them, it is hoped in the near future to make a good bowling green in the shelters field. No colony should be without a library containing books relating to its industries, as well as novels and books of general interest. Englethwaite is badly off in this respect. A fair start has been made, but as the Colony is supported by the rates, it is largely dependent on the kindness of friends for the contents of its bookcase. Books, games and prizes for competitions will be gratefully received and acknowledge by either the Matron or the Medical Superintendent.

A Dry Canteen has been formed under the direct supervision of the Medical Superintendent, and managed by the Under Foreman. This canteen supplies the Colonists with tobacco, matches, notepaper, aerated waters, etc. Any profits are handed over to the Sports Fund.



#### 4. COLONISTS' LEAVE.

By a system of week-end leave, Colonists are able to keep in touch with their homes. This has been proved to be necessary, because their stay in the Colony is a prolonged one, and is of the utmost importance, especially to married men with families.

The system of leave, as defined in the Minutes of the Hospitals Sub-Committee, is as follows :—

##### COLONISTS' LEAVE.

- (1) That in all cases leave be subject to the discretion of the Medical Superintendent, and that Carlisle be out of bounds, unless permission is granted by the Medical Superintendent.
- (2) That Staff Foremen and Under-Foremen be entitled to :—
  - (a) From a Saturday to the following Monday fortnight during the year with full pay.
  - (b) That once a fortnight they be allowed to go home from after working hours on Saturday till first train on Monday morning, provided they are not required at the Colony during that period.
  - (c) That no wages will be paid for any further period of leave granted by the Medical Superintendent.
- (3) (a) That acting Under-Foremen who have completed a year's treatment and training in the Colony be granted the same leave as ordinary Colonists except
  - (b) That they may be allowed to go home once a fortnight from after working hours on Saturday till first train on Monday morning, provided they are not required at the Colony during that period.
- (4) (a) That Colonists after their first calendar month at the Colony may be granted leave from the afternoon train on Saturday to the last train on Monday evening.
  - (b) At the end of the second calendar month the same leave.
  - (c) At the end of the third calendar month from the afternoon train on Friday till the last train on Tuesday evening.
  - (d) Thereafter in rotation the same monthly period of leave—two short week-ends, followed by a long week-end.
- (5) That alternatively Colonists may be granted leave at the end of each two calendar months, as follows :—
 

From the first train on Friday till the last train on Tuesday evening.

#### 5. TRAINING AND OUTDOOR STAFF.

The members of the Training and Outdoor Staff not only give instruction in the various industries, but are responsible for the carrying out of the work of the same. They can do much to make the Colony departments run smoothly.

At Englethwaite one fit man only is on the Training and Outdoor Staff. He is responsible for the electric light, water supply, etc., as well as being Head Gardener. The remaining members of the staff have at one time suffered from Tuberculosis, and the two Under-foremen have been trained at Englethwaite, and promoted from Colonists at the end of their period of treatment and training.

At Englethwaite there is an original system of Acting Staff men. These men are still Colonists, but in view of their character and ability are given the rank of Acting Under-foremen, and assist the Foremen and Under-foremen in the working of the departments.

The rank carries with it certain privileges, *e.g.*, permission to stay out longer at night, and to visit Carlisle occasionally. The system has proved of great value; it encourages good conduct and enterprise, and such promotion, though carrying no monetary advantages, undoubtedly helps a man to have confidence in himself and his capabilities. From the Acting Staff men new paid staff appointments are filled, and although it will be impossible to retain all the Acting Staff as Staff, still the inauguration of what may be called a Staff Probation Period has proved a very important factor in the administration of this Colony.

## 6. RELIGIOUS SERVICES.

The parish church is situated only a mile away, and Colonists are allowed to attend services there. The Rev. R. Bott, Cotehill, takes an interest in the Colonists, and visits them from time to time, particularly when there are cases of sickness. Through the great kindness of Mrs. Liddell, Warwick Hall, the religious needs of the Roman Catholic Colonists have been amply provided for. She continues to convey them at regular intervals in her motor car to and from services at Warwick and Carlisle, and grateful thanks are due to her, and to Mr. Dias, Carlisle, for similar kindnesses.

It is hoped to establish a regular system of monthly services to be held in the Recreation Hall—meanwhile occasional services have been conducted through the kindness of the Rev. J. Anderson Lowe, B.D., Southwick, Dumfries, and the Rev. R. Troup Sivewright, M.A., Carlisle.

An informal service of hymns is held every Sunday evening in the Recreation Hall, and is very well attended.

### MEDICAL REPORT.

The first Colonist was admitted on April 19th, 1920, and during that month four other Colonists were admitted, not because the Colony was actually ready, but in order that they might help to start the Market Garden and Poultry Farm. Colonists were admitted gradually, and by October, 16 were in residence, by December, 24, and by the end of the first financial year (March, 1921), 26 in all.

As the Laundry was being built and equipped, the sewage disposal system being increased, and the electric light plant renewed, the admission of Colonists had perforce to be gradual. During 1921-22 the new shelters were constructed and erected. Colonists were then admitted as rapidly as accommodation permitted until the 40 beds were all in use.

The following table shows the average number of Colonists in residence per month, and the average duration of stay :—

	<i>Average No. of Colonists.</i>			<i>Average Length of Stay.</i>		
1920-21 ...	15	per month	...	...	5	months.
1921-22 ...	38	„	...	...	8	„

In 1920-21, 32 Colonists were admitted, and of these 21 were still in residence at the end of the first financial year. During 1921-22, 42 Colonists were admitted, making a total of 63 for that year. Of the 32 Colonists in residence during 1920-21, 25 were ex-service men, and 5 civilians from Cumberland ; 2 being from outside areas.

Of the 63 Colonists in residence during 1921-22, 31 were Cumberland ex-service men, and 24 ex-service men from other areas ; the remaining 8 being Cumberland civilians.

The following table shows what has become of all the Colonists who were admitted during these two years :—

			1920-21.		1921-22.
Taken on paid staff ...	...	...	3	•	2
Discharged at end of period of Treatment granted	...	...	1	...	11
„ to other Institutions	...	...	1	...	1
„ as unsuitable	...	...	3	...	11
Left of own accord	...	...	3	...	2
Died at Englethwaite	...	...	—	...	1
Remaining in Colony	...	...	21	...	35
Total ...			32	...	63



It will be seen above that 11 in 1920-21, and 28 in 1921-22, for various reasons, ceased to be patients, and the following table shows the state of their health at the time of their discharge :—

				1920-21.	1921-22.
Fit for work	...	...	...	3	10
Fit for light work	...	...	...	2	8
Condition improved		...	...	4	5
„ unchanged		...	...	1	3
„ worse	...	...	...	1	1
Died	...	...	...	0	1
Total				11	28

There is nothing so bad, both mentally and physically, when a man has reached a certain stage in the arrest of his disease as to allow him to think he is incapable of any work.

*Most people would be agreeably surprised to learn the amount of work a tuberculous patient can do, to the advantage of his own health, given good food and healthy surroundings, provided that he is under constant medical supervision, in order that the work allotted to him and his hours of work may be decided solely on his physical condition.*

In classing a man “fit for work” on his discharge, I mean to convey that given a suitable environment and sufficient food, that man should be able to earn his living.

The man classed “fit for light work,” correspondingly may not be able to support himself entirely, but should be able to go a considerable way towards doing so.

The question is largely one of after-care, and this will be considered in another paragraph.

The three men discharged in 1920-21, marked “fit for work” are all earning their living and doing very well.

Of the two marked “fit for light work,” one is still doing light work, the other has left the district and cannot be traced.

Of those discharged in 1921-22 it is too early to speak, as many of them have only recently left the Colony ; besides, the present state of the labour market makes it difficult for

even fit men to find work. It is intended, however, to make every effort to keep in touch with all men who complete their period of treatment and training, and to publish, from time to time, the results of the treatment. granted, so far as these men are concerned. The scheme of treatment adopted at Englethwaite runs on the following lines:—full open-air treatment, good food, and work which is graduated according to the patients' strength.

Some men when admitted are fit for very little work, soon they are put on light work for 3 hours, later for  $4\frac{1}{2}$  hours, till gradually they are fitted for the full Colony working day of 6 hours.

A man on 3 hours work only, works from 9—12, and rests in the afternoon; a man on  $4\frac{1}{2}$  hours work does 3 hours in the morning, rests on his bed from 1-30—3, and works  $1\frac{1}{2}$  hours in the afternoon.

#### TIME TABLE.

Rising Bell Rings	...	...	...	7-30 a.m.
Breakfast (porridge with bacon, eggs or fish)...	...	...	...	8 a.m.
Work	...	...	...	9—12 noon.
Rest	...	...	...	12—12-30 p.m.
Dinner (3 courses, with milk)	...	...	...	12-30 p.m.
Rest	...	...	...	1—1-30 p.m.
Work	...	...	...	1-30—4-30 p.m.
Tea (with meat)	...	...	...	5 p.m.
Recreation	...	...	...	(Oct.—Mar.) 5-30—8 p.m. (April, May and Sept. 5-30—8-30 p.m. (June, July and Aug.) 5-30—9 p.m.
Supper (bread and butter, with milk)	...	...	...	8—9 p.m. according to season.
In Wards and Shelters	...	...	...	9-30 p.m.
Lights out	...	...	...	10 p.m. ...

From the above time-table it will be seen that Colonists have half an hour's rest both before and after meals; cases requiring rest in bed are dealt with specially by the Medical Superintendent. Each Colonist is provided with one quart of milk per day.

The Colonists take their own temperature night and morning, and report them to the Sister who keeps a chart-record for each man.

A man reporting a rise in temperature, has it taken again by the Sister, and is not allowed to go back to work till his temperature settles.

If a man when working feels unwell, he must report to his foreman, and is sent off duty. Similarly, if a foreman notices a man looking unwell, he sends him to report to the Matron or Sister. Colonists are weighed every week, and a weight chart kept for each man. Every Colonist undergoes a complete Medical Examination monthly, and oftener while he is not on full work, or when he is not making steady progress.

Examinations of the sputum of all Colonists are carried out regularly.

### **REPORT ON INDUSTRIES.**

As has already been pointed out, Colony Treatment is associated largely with graduated exercise in the form of work. If work is to be done it ought to be of practical value to both Colonists and Colony, and it is, therefore, essential to establish industries.

Industries may be carried out with three objects:— (1) to teach men a new open-air occupation by which they may help to support themselves after they leave ; (2) to make the industries pay, so that their surplus proceeds may be used to lighten the cost of the maintenance of the institution ; (3) to enlarge the industries so that they may support permanently a certain number of suitable colonists, and thereby form the nucleus of a village settlement.

At Englethwaite all these are kept in view, but at present the first two objects are receiving fuller consideration. The men employed in the various departments receive a small sum per hour for their work. This is officially termed Colonists' Remuneration, but is actually encouragement money. To the civilian it frequently means more than encouragement, making it easier for him to leave his home and family in order to enter the Colony. Shortly after the Colony was opened the scale of remuneration, subject to satisfactory work in each case, was as follows:—First two months no pay, third month 3d. per hour, fourth month 4d. per hour, 5th and subsequent months 5d. per hour.



It was hoped that pensioned ex-service men, at least, would save their remuneration and have something in hand on leaving the Colony, but this expectation was not fulfilled.

A Colony Savings Bank was, therefore, started, but did not meet with much success, therefore, in Nov., 1921, the following new scale of remuneration was adopted:—First two months no pay, third month 2d. per hour, fourth and subsequent months 3d. per hour.

At the same time it was decided that civilians with dependants should be remunerated on the old scale, but that ex-service men on pension and civilians without dependants should come under the new. It was further resolved that all men on the new scale should receive at the end of their year's treatment and training a bonus, being the difference between the total amount of the remuneration received under the new scale, and the total amount which they would have received under the old scale, provided that their work during the whole of their period of treatment and training had been carried out to the satisfaction of the Medical Superintendent.

The industries so far developed at Englethwaite are:—

1. Market Gardening
2. Poultry-Keeping
3. Clog-Making
4. Joinery
5. Making of Artificial Dentures.

### 1.—THE MARKET GARDEN.

When taken over there was at Englethwaite half an acre of land under cultivation as a garden, a vinery, a row of glass houses, and a block of frames. Adjoining the garden was a field of about  $2\frac{1}{2}$  acres of land in very poor condition, and a 17 acre field recently sown down to grass, also in poor condition.

During 1920-21 the  $2\frac{1}{2}$  acre field was ploughed up, and converted into market garden.

At the same time it was decided to use part of the large field as market garden, and part as poultry farm. With this object in view  $2\frac{1}{2}$  acres were ploughed up, and planted with potatoes.

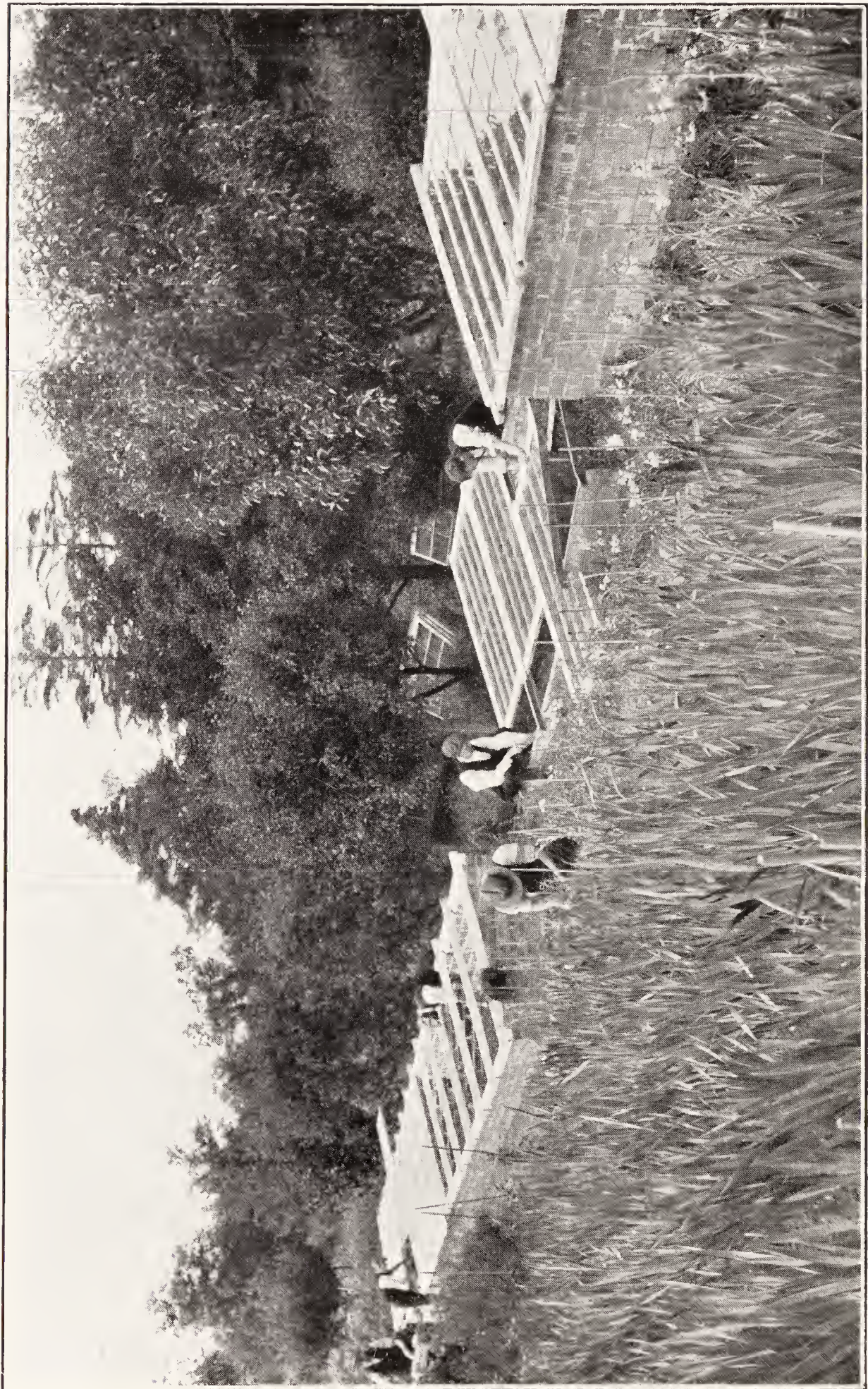




CORNER OF MARKET GARDEN.

[*Tassell, Carlisle.*





MARKET GARDEN (GLASS FRAMES).

[Tassell, Carlisle.



During 1921-22 the land already broken up was all in use as market garden, and a further 3 acres of the large field had also been added during the winter of 1921. Two more acres were broken up, so that at the end of the second year the market garden comprised 11 acres.

During 1921-22 two large blocks of garden frames were constructed, the vinery was repaired, painted, and re-glazed throughout, and the glass houses were also repaired and painted. All these improvements were carried out by Colony labour. The progress of the market garden is clearly shown by an examination of the following table, which compares the amount of produce raised in the two years:—

	1920-21.	1921-22.
Potatoes ... ..	14 tons ...	25 tons.
Carrots, Turnips, Onions	7 cwts. ...	5 tons.
Beetroot ... ..	6 sts. ...	1 ton.
Beans and Peas ...	6 cwts. ...	10 $\frac{3}{4}$ cwts.
Cabbages, Savoys etc.	694 (heads) ...	4693
Tomatoes ... ..	64 lbs. ...	182 lbs.
Grapes ... ..	88 lbs. ...	160 lbs.
Lettuces (heads) ...	281 ...	662
Celery (heads.) ...	457 ...	487
Cucumbers (heads)	30 ...	94
Brussels Sprouts ...	None. ...	422 lbs.
Fruit ... ..	3 cwts. ...	8 cwts.
Seedlings, various (Sold)	None. ...	25,000

The financial position of the market garden in 1921-22, as well as of the other industries, will be found in the Financial Statement.

It is necessary to point out that the breaking up of the new land, and the heavy manuring it required, have added greatly to the expense of the market garden.

New fruit trees have also been a heavy item, but as time passes this expenditure will be amply justified. It is intended to develop extensively the trade in seedlings, not only because it is a remunerative branch of garden work, but because it entails a large amount of light labour on which the less fit Colonists can be employed. The average tuberculous patient is unfit for heavy garden work and so, at Englethwaite, a great deal of the heavy digging is avoided by the use of a single horse plough, grubber, etc.

The garden workers keep the Hospital grounds in order and thus gain an insight into the keeping of lawns, borders flower beds, etc.

## 2.—THE POULTRY FARM.

In May, 1920 about 250 day-old chicks were purchased, and 7 acres of the large field marked off for the Poultry Farm.

Two large huts were bought from the Gretna Munition Factory, and were dismantled and re-erected by Colony labour. The larger hut was erected on a new cement floor, and was divided into an incubator room, and a food store.

The smaller hut was converted into a laying house.

Another laying house and a breeding house were purchased from Papworth Industries.

In December, 1920, a No. 1 pen of White Wyandottes was purchased from Tom Barron, and pens of Light Sussex, White Wyandottes, and White Leghorns, were purchased from Simon Hunter. During the breeding season of 1921 the aim was to raise a good strain of pullets from the above breeding pens, and this object was fully achieved.

By the end of the financial year 1921-22, in addition to the two large fully stocked laying houses, there were on the farm 11 breeding pens, comprising the following high-class utility breeds :—

- (1.) White Wyandottes.—4 pens.
- (2.) White Leghorns.—3 pens.
- (3.) Light Sussex.—2 pens.
- (4.) Rhode Island Reds.—1 pen.
- (5.) Black Leghorn.—1 pen.

By this time the incubator-house was equipped with seven incubators, with a combined capacity for 1,000 eggs, and the day-old chick trade was fully established. The Poultry Farm is run on scientific lines, and up-to-date methods are employed. All laying pullets are trap-nested, and accurate chart records are kept of all these birds during their first year. Only birds with a high-laying record are kept for breeding purposes and poor layers are disposed of.

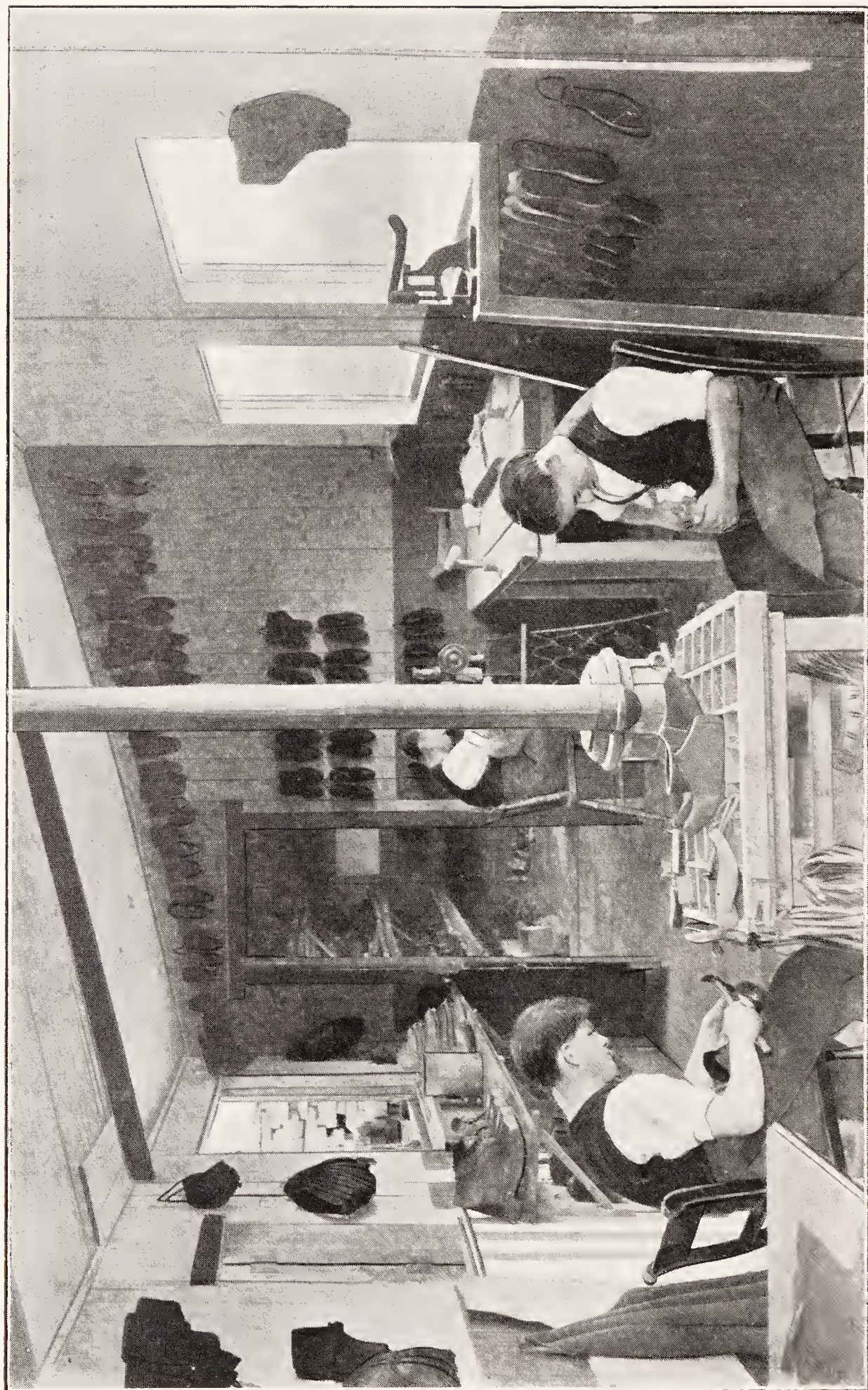




SMALL PART OF POULTRY FARM.

[Tassell, Carlisle.





CLOGGER'S SHOP.

[Tassell, Carlisle,



The following table gives an idea of the sales from the poultry farm during its first two years :—

			1920-21.		1921-22.
Eggs	...	...	2,888	...	21,664
Pullets	...	...	68	...	198
Cockerels	...	...	138	...	411
Hens	...	...	None.	...	37

Eggs used for incubation purposes are not included in the above table. Owing to the high cost of huts, wire-netting, appliances, etc., which were bought during 1920-21, the poultry Farm has been very heavily handicapped, but from the progress made it appears certain that in time it will be able to pay off all the initial expenditure.

### 3.—CLOG MAKING.

During 1920-21 a large hut from Gretna, and the necessary cloggers' tools were purchased. The progress in this industry was extremely slow for the first year, chiefly owing to the difficulty of establishing a market.

During the second year progress has been much more satisfactory, and 547 pairs of clogs were sold. Contracts were obtained from the Cumberland and Westmorland Mental Hospital, the Whitehaven Board of Guardians, and a considerable order from the Chief Constable for Cumberland. At the end of the financial year a very large stock of completed clogs was still on hand.

This industry is now in a position to purchase first-grade clog uppers and soles at an extraordinarily low rate, and when a better market can be established, clog-making should prove a remunerative industry.

The clog-making department has recently been able to undertake shoe repairing, and it is felt that a tuberculous patient who can acquire a working knowledge of both clog-making, and clog and shoe repairing, ought to be able to make a comfortable living when he returns to his own district. Clog-making can be learned in a few months' time.

The loss on this department during 1921-22 is largely accounted for by the depreciation in value of the stock carried over from 1920-21.

#### 4.—JOINERY.

During 1920 a hut for a joiners' workshop, and tools were bought, and a certain amount of joinery work was carried out. The department, however, was not really in working order till the beginning of the second financial year. There is, therefore, only one year's progress to consider, and this has been highly satisfactory.

In spite of the comparatively small number of men employed, 13 shelters have been constructed, a contract for library boxes for the Education Committee has been completed, a number of poultry houses have been erected, and considerable alterations and repairs have been made to the woodwork of the Colony buildings.

It is anticipated that later on this department will be given a considerable amount of work to do for the Education Committee. It is further intended to develop the rural carpentry branch of this department:—wheel barrows, implement handles, and rustic work.

#### 5.—ARTIFICIAL DENTURES.

This very small department was started by a Colonist who had previously been a dental mechanic, chiefly with the object of supplying artificial dentures to the Secondary and Elementary School children, on the recommendation of the School Dental Officer. A fair amount of work was carried out.

#### BRIDGE OVER LIGHT RAILWAY.

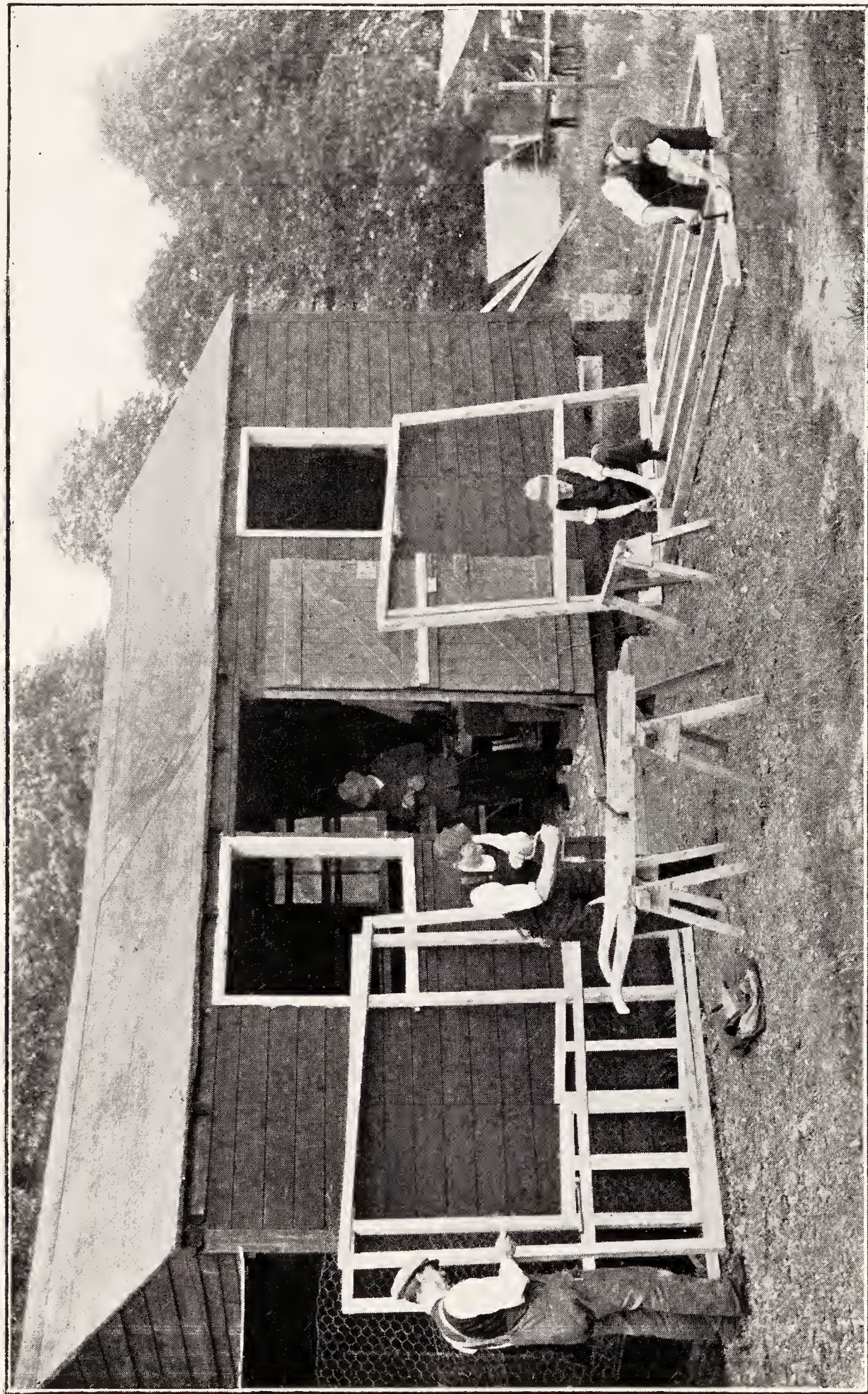
The bridge over the light railway which runs through the grounds, had become unsafe, and a new bridge was necessary (1.) to allow Colonists to cross direct to the poultry farm and workshops, and (2) to carry the main water supply.

Contracts for the erection of a bridge were obtained, and these varied in price from £250 for a simple structure, to £500 for a metal bridge.

It was decided to erect a wooden bridge by Colony labour, assisted by the Staff men already employed on the Colony, and this was done in August, 1921.

The piers were obtained from larch trees felled in the grounds, and an excellent and substantial bridge built entirely of larch was constructed for the total sum of £86 13s. 6d.





JOINERS' WORKSHOP (NOW DOUBLED IN SIZE).

[Tassell, Carlisle.





## **MODIFIED SCHEME OF EXPANSION.**

A scheme to increase the number of beds from 40 to 75 has been passed by the County Council, and is now before the Ministry of Health for approval. This scheme is estimated to cost £4,000, and would include the provision and equipment of 35 additional shelters, a new recreation hut, a new lavatory block, the conversion of the present recreation room into a dining room, etc., this scheme to be carried out in such a manner that the original proposal to develop the Colony to 100 beds could at any time be completed on the most economical plan. In view of the financial position of the County and the Country, this expansion is not likely to be put into operation for some considerable time.

## **AFTER CARE.**

Every Cumberland Colonist on leaving Englethwaite is directly under the supervision of the County Medical Officer of Health, who is also Chief Tuberculosis Officer, who either grants him domiciliary treatment, or dispensary treatment; in the first instance he is treated by his own family doctor, and in the second he is treated by the Area Assistant Tuberculosis Officer. From a Medical point of view, therefore, it will be seen that he is well provided for.

It would be very desirable if Local After-Care Committees could be established throughout the County for the purpose of helping Colonists to find work, and also to give them help and encouragement in any new ventures which they may undertake.

## **VISITS TO COLONY.**

On August 4th, 1920, the Members of the Cumberland County Council visited Englethwaite, and made a complete inspection of the buildings, grounds, etc., On September 15th, 1920, Dr. A. S. MacNalty, of the Ministry of Health with Dr. P. C. Varrier-Jones, of Papworth Colony, paid an official visit from the Ministry. On December 1st, 1920, representatives from the Cumberland and North of England press visited the Colony, and later published extensive reviews in their respective newspapers. On February 24th, 1922, representatives from Northumberland County Council, with their Medical Officer of Health, visited Englethwaite.



### **DONATIONS TO COLONY.**

A donation of £400 was received in 1920 from the Cumberland Branch of the British Red Cross Society, and a special grant of £500 was later received from the Cumberland Insurance Committee. The following gifts, among others, have also been received, and are gratefully acknowledged. Numerous parcels of clothing, games, books, etc., from Lady Mabel Howard. Sets of bowls, gramophone Records, etc., from Major H. Ballantine Dykes. Gramophone and records, sets of bowls, etc., from Mr. Jas. Mc.Gowan. Two Goats from Miss Dykes. One Goat from Mrs. Burnett, Scotby. Salmon from Mr. Norman Fletcher, Eden Brows. Gloves from Mr. J. R. Spencer, Leicester. £2 towards Comforts Fund from Mrs. A. B. Wilson, Braithwaite.

### **FINANCE.**

The Medical Superintendent is also Accounting Officer for the Colony, and is responsible for all payments, for the collecting of all sums due to the Colony, for maintenance claims from other areas, and for sales of the produce of the industries.

This entails a great amount of book-keeping, and ought not to form part of a Medical Superintendent's duties.

Recently a Colonist with some previous training as a clerk has been of invaluable service in keeping the Sales Books, &c. This man has done so well that it is intended shortly to put him on the paid staff as clerk, and to equip a shelter as an office for him. Without doubt some, possibly a considerable proportion, of the time of the Medical Superintendent should be at the disposal of the County Medical Officer for general duties.

By a simple but detailed system of Sales Books all Cash and Credit Sales are recorded, and brought up-to-date each week, and all transactions between departments are recorded.

By a large dissected Cash Book all Cash Receipts and Payments are recorded in such a manner that at any time it is easy to supply information to the County Council, Government Auditor or Ministry of Health. As small Cash Sales are constantly taking place, a staff man in each department keeps a Day Book, and gives a receipt for all money received. This money is handed over to the Medical Superintendent at the end of each week.

Appendix "A" contains a statement of the Capital Expenditure to date, and Appendix "B" contains a detailed Statement of the Current Financial position for 1921-22.

## APPENDIX A.

CAPITAL EXPENDITURE IN CONNECTION WITH ENGLETHWAITE  
TUBERCULOSIS COLONY.

Purchase Money, Stamp Duty, &c., Englethwaite Hall ..	£5083	10	6
Alterations and Additions .. .. .	7387	15	9
Furniture and Equipment .. .. .	2500	19	7
Shelters .. .. .	469	11	11
Huts :—			
Poultry Farm .. .. .	£230	10	0
Joiners' Shop .. .. .	64	0	0
Cloggers' Shop .. .. .	55	0	0
		349	10 0
		£15791	7 9
Say ...	£15800	0	0
Capital Grant received from Ministry of Health ..	£5585		
Amount paid in respect of Stonebridgelees, and now to be applied to Englethwaite .. ..	615		
			£6200
Sums Borrowed .. .. .			8600
			£14800
Balance of Capital Grant held over by Ministry of Health, pend- ing inspection of the Institution by a Medical Officer of the Ministry .. .. .			1000
			£15800

## APPENDIX B.

## INCOME YEAR ENDED 31ST MARCH, 1922.

	Actual Cash Receipts.	Other Credits.	Total.
MAINTENANCE.			
Cumberland Insurance Com- mittee (for Maintenance of Discharged Soldiers and Sailors) .. .. .	£701 12 0..	—	£701 12 0
Ministry of Health (for Main- tenance of Discharged Soldiers and Sailors (Estimated) .. .. .	900 0 0..	—	900 0 0
Maintenance of Patients from Outside Areas .. .. .	904 10 6..	—	904 10 6
Other Receipts .. .. .	8 0 9..	—	8 0 9
INDUSTRIES.			
Market Garden .. .. .	331 1 1..	616 6 8..	947 7 9
Poultry Farm .. .. .	443 7 6..	489 18 7..	933 6 1
Clog-making .. .. .	193 11 7..	150 5 3..	343 16 10
Joinery .. .. .	38 4 11..	644 16 1..	683 1 0
Dental .. .. .	23 12 0..	5 5 0..	28 17 0
Total ..	£3544 0 4..	£1906 11 7..	£5450 11 11



## EXPENDITURE, YEAR ENDED 31ST MARCH, 1922.

	<i>Actual Cash</i>			<i>Other</i>			<i>Total Charge</i>		
COST OF MAINTENANCE.	<i>Payments</i>			<i>Charges.</i>			<i>for Year.</i>		
Provisions .. ..	£1550	17	6..	£210	11	9..	£1761	9	3
Fuel, Light and Cleaning (Including Laundry) ..	585	4	1..	24	2	6..	609	6	7
Repairs to Buildings ..	203	17	0..	69	3	2..	273	0	2
Repairs to Machinery ..	44	5	7..	—		..	44	5	7
Furniture, Bedding and Kitchen Appliances ..	135	14	1..	0	13	6..	136	7	7
Drugs and Appliances ..	39	4	1..	—		..	39	4	1
Rent, Rates, Taxes and Insurance .. ..	74	1	6..	—		..	74	1	6
Travelling Expenses of Patients .. ..	4	4	0..	—		..	4	4	0
Travelling Expenses of Staff ..	20	8	6..	—		..	20	8	6
Printing, Advertising and Office Expenses .. ..	118	19	0..	—		..	118	19	0
Other Payments .. ..	29	3	0..	1	10	0..	30	13	0
Grounds and General Hospital .. ..	135	5	1..	14	19	7..	150	4	8
Bridge Over Light Railway ..	69	13	6..	17	0	0..	86	13	6
12 Shelters (Capital) ..	—		..	297	0	0..	297	0	0
SALARIES.									
Matron and Nurses ..	240	0	11..	—		..	240	0	11
Domestics .. ..	234	0	8..	—		..	234	0	8
COST OF INDUSTRIES.									
Market Garden .. ..	772	4	2..	257	3	4..	1029	7	6
Poultry Farm .. ..	889	10	6..	281	12	0..	1171	2	6
Clog-making .. ..	276	8	10..	158	11	1..	434	19	11
Joinery .. ..	590	17	4..	89	3	9..	680	1	1
Dental .. ..	16	6	3..	2	3	0..	18	9	3
Total .. ..	£6030	5	7..	£1423	13	8..	£7453	19	3

## MARKET GARDEN, YEAR ENDED 31ST MARCH, 1922.

	<i>Receipts.</i>		
Actual Cash Receipts .. ..	£331	1	1
Accounts Outstanding .. ..	13	1	7
Debits to Hospital and other Departments ..	199	17	9
	£544	0	5
Value of Stock on hand .. ..	363	7	4
„ New Equipment .. ..	40	0	0
	£947	7	9

		<i>Payments.</i>			
		<i>Equipment.</i>		<i>Maintenance.</i>	
General Payments ..	..	£58 12 5..	£342 2 7		
Wages—Outdoor Staff ..	..	— ..	174 11 8		
Colonists' Remuneration ..	..	— ..	196 17 6		
		£58 12 5..	£713 11 9		
Less Accounts relating to					
1920-21 .. ..	..	36 7 3..	80 19 11		
		£22 5 2..	£632 11 10		
Add Accounts outstanding,					
March 31st, 1922 ..	..	— ..	57 2 4		
Debits from Joinery Dept.		19 10 0..	6 2 3		
Value of Stock, 1st April,					
1921 .. ..	..	— ..	276 18 2		
Depreciation of 10% on					
initial Equipment ..	..	— ..	14 17 9		
		£41 15 2..	£987 12 4		
				£1029 7 6	

## POULTRY FARM, YEAR ENDED 31ST MARCH, 1922.

## RECEIPTS.

Actual Cash Receipts .. ..	£443 7 6		
Accounts Outstanding .. ..	31 5 2		
Debits to Hospital and other Departments	99 15 11		
		574 8 7	
Value of Stock in hand .. ..	288 17 6		
„ New Equipment .. ..	70 0 0		
		£933 6 1	

## PAYMENTS.

		<i>Equipment.</i>		<i>Maintenance.</i>	
General Payments ..	..	£48 6 6..	£523 12 3		
Wages—Outdoor Staff ..	..	— ..	204 0 0		
Colonists Remuneration ..	..	— ..	113 11 9		
		48 6 6..	841 4 0		
Less Accounts relating to					
1920-21 .. ..	..	1 7 6..	62 6 11		
		£46 19 0..	£778 17 1		
Add. Accounts outstanding,					
March 31st, 1922 ..	..	9 15 0..	73 5 5		
Debits from Market Garden		— ..	23 7 4		
Debits from Joinery Dept.		16 12 6..	13 18 10		
Value of Stock, 1st April,					
1921 .. ..	..	— ..	160 15 0		
Depreciation of 10% on					
initial Equipment ..	..	— ..	47 12 4		
		£73 6 6..	£1097 16 0		
				£1171 2 6	



## CLOG-MAKING, YEAR ENDED 31ST MARCH, 1922.

## RECEIPTS.

Actual Cash Receipts .. ..	£193	11	7	
Accounts Outstanding .. ..	—			
	£193	11	7	
Value of Stock on hand .. ..	147	5	3	
„ New Equipment .. ..	3	0	0	
				£343 16 10

## PAYMENTS.

	<i>Equipment.</i>	<i>Maintenance.</i>	
General Payments .. ..	2 16 9..	£185 14 11	
Wages, Outdoor Staff .. ..	—	2 0 0	
Colonists' Remuneration .. ..	—	85 17 2	
	£2 16 9..	£273 12 1	
Less Accounts relating to 1920-21 .. ..	0 13 0..	20 5 10	
	£2 3 9..	£253 6 3	
Add. Accounts Outstanding, March 31st, 1922 .. ..	—	47 19 3	
Debits from Market Garden .. ..	—	2 3 6	
Debits from Joinery Dept. .. ..	1 10 0..	—	
Value of Stock, April 1st, 1921 .. ..	—	120 4 8	
Depreciation of 10% on initial Equipment .. ..	—	7 12 6	
	£3 13 9..	£431 6 2	
			£434 19 11

## JOINERY DEPARTMENT, YEAR ENDED 31ST MARCH, 1922.

## RECEIPTS.

Actual Cash Receipts .. ..	£38	4	11	
Accounts Outstanding .. ..	66	1	10	
12 Shelters chargeable to Capital Account	297	0	0	
Debit to Bridge over Light Railway ..	14	4	0	
Debits to Hospital and other Departments	124	10	3	
	£540	1	0	
Value of Stock on hand .. ..	135	10	0	
„ New Equipment .. ..	7	10	0	
				£683 1 0

## PAYMENTS.

		<i>Equipment.</i>	<i>Maintenance.</i>
General Payments ..	..	£20 17 1..	£293 8 4
Wages, Outdoor Staff ..	..	— ..	190 14 5
Colonists' Remuneration ..	..	— ..	85 17 6

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		£20 17 1	£570 0 3
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Less Accounts relating to 1920-21 .. ..	..	14 16 3..	11 12 4
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		£6 0 10	£558 7 11
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Add. Accounts Outstanding, March 31st, 1922 ..	..	— ..	18 14 11
Debits from Market Garden ..	..	— ..	11 0 6
Debits from Poultry Farm. .	..	3 19 6..	—
Value of Stock, April 1st, 1921 .. ..	..	— ..	69 15 3
Depreciation of 10% on initial Equipment ..	..	— ..	12 2 2

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		£10 0 4	£670 0 9
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		£680 1 1
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## ARTIFICIAL DENTURES, YEAR ENDED 31ST MARCH, 1922.

## RECEIPTS.

Actual Cash Receipts ..	..	..	£23 12 0
Accounts Outstanding ..	..	..	5 5 0

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		£28 17 0
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## PAYMENTS.

General Payments ..	..	..	£12 11 3
Colonists. Remuneration ..	..	..	3 15 0

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		16 6 3
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Debit from Joinery Department ..	..	2 3 0
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		£18 9 3
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